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THE STRONG DOLLAR: CAUSES, CONSEQUENCES AND POLICY IMPLICATIONS

PROCEEDINGS

OF A

CONFERENCE

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LETTERS OF TRANSMITTAL

NOVEMBER 18, 1985.

To the Members of the Joint Economic Committee:

I am pleased to transmit the transcript of a conference on "The Strong Dollar: Causes, Consequences and Policy Implications." This workshop was organized at my request by the Congressional Research Service of the Library of Congress.

There was solid agreement among the participants that the basic cause of the strong dollar is the large budget deficit of the United States coupled with a restrictive monetary policy. These policies induced a huge net inflow of capital from abroad, bidding up the dollar. Reversing these two basic policies is necessary if the dollar is to be brought down without serious damage to the U.S. economy.

There was, however, no agreement on the need for additional policies focusing directly on the dollar exchange rate—on intervention in the foreign exchange markets, on setting target zones for the exchange rates of the major currencies, on imposing controls over the flow of capital to the United States.

In addition to a verbatim transcript, there is a summary of the proceedings by the moderator, Alfred Reifman, Senior Specialist in International Economics at the Congressional Research Service.

I would like to thank him, the Congressional Research Service, and Kent Hughes of the staff of the Joint Economic Committee for organizing such a useful conference. I am sure the proceedings will be in demand by government officials here and abroad, and by students of the subject.

Sincerely yours,

DAVID R. OBEY,
Chairman, Joint Economic Committee.

NOVEMBER 8, 1985.

Hon. DAVID R. OBEY,
Chairman, Joint Economic Committee,
Congress of the United States, Washington, DC.

DEAR MR. CHAIRMAN: I am pleased to transmit the transcript of our May 1, 1985, conference, organized at your request, on "The Strong Dollar: Causes, Consequences and Policy Implications." The conference brought together experts from universities, private research organizations, government, both the executive and legislative branches, and business.

In addition to the transcript of the proceedings, we have attached statements by Governor Henry Wallich of the Federal Reserve System and Professor Rudiger Dornbusch of MIT, who were unable to attend the conference, and extensions of their remarks by Robert Solomon, Jacob Frenkel and John Williamson.

There is also a summary of the conference by Alfred Reifman, Senior Specialist in International Economics in the Congressional Research Service. He is responsible for organizing the conference and editing the volume.

The conference was facilitated by a generous grant from the Ford Foundation designed to improve an understanding of international economic issues in the U.S. Congress. We especially want to thank Thomas Bayard for his initiative and cooperation in this effort.

We hope that your committee and the Congress will find this volume useful.

Sincerely yours,

GILBERT GUDE,
Director, Congressional Research Service.

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OVERVIEW—BY ALFRED REIFMAN, CONGRESSIONAL RESEARCH SERVICE

Since 1980, the dollar had risen steadily against foreign currencies, reaching a peak in February 1985. On a trade-weighted basis the dollar is now more than one-third above the admittedly depressed level of 1980. Why is the dollar so high? What are the economic consequences of the strong dollar? What, if anything, should the United States be doing about it? These questions were the subject of a day-long conference of experts from universities, research organizations, business and government.

CAUSES OF THE HIGH DOLLAR

In some ways the persistent strength of the dollar has seemed to defy economic explanation. However, as Jacob Frenkel (University of Chicago) points out, main-stream economic thought agrees that one of the primary causes for the strong dollar is the huge increase in the U.S. budget deficit since 1982 at the time that monetary policy was relatively tight.

The impact of the budget deficit on the exchange rate is fairly direct. When the government spends more than it receives in taxes, it does so by borrowing savings of the private sector. Without a matching increase in private savings—and a matching increase is unlikely, since private savings have been remarkably stable at 8 to 9 percent of GNP since the end of World War II—the government deficit must be financed by foreign savings. If this inflow of foreign savings had not materialized, the government's deficit would have had to be financed by a reduction in funds going to private investment, housing or personal consumption.

This has not developed because foreigners have willingly invested their savings in the United States. The tax cut of 1981 and the resultant budget deficit raised profits, interest rates, output and employment in the United States, making it an attractice place for investment by Americans and foreigners. The net inflow of funds from abroad (or, its economic equivalent, the reduced capital outflow) bid up the dollar.

In short, the increase in the budget deficit, from 2 percent of GNP in the 1970s to 5 percent in the 1980s, stimulated the U.S. economy, raising profits and interest rates, attracting funds from abroad. The increased demand for dollars raised the dollar exchange rate. This is one of the principal explanation for the appreciation of the dollar in the 1980s.

The net inflow of financial capital is matched by a net inflow of real goods and services, the trade deficit. The higher exchange rate for the dollar inhibits exports and stimulates imports. The resultant increase in real goods and services thereby made available in the United States supplements our own production and allows domestic consumption and investment to exceed the country's output.

Other factors—how the deficit is financed (whether by monetary expansion or not), the expected future as well as the current budget deficit, whether the deficit is the result of a tax cut or spending increase, the course of inflation—are also relevant. Indeed, the current exchange rate reflects perceptions about future policies and economic conditions.

There is limited merit to the argument that the dollar has appreciated as the result of funds coming to the United States in search of a "safe haven" from political disruption abroad. For this to be more than a short episode there has to be a sustained increase in the degree of instability abroad.

Finally, there may well have been a basic change in the preference of investors, Americans and foreigners, toward holding a larger proportion of their assets denominated in dollars and less in assets denominated in other currencies. If this change is still taking place, the dollar will stay strong and may even appreciate regardless of other factors. Nevertheless, at some time the preference for dollar-denominated assets will be satisfied and this factor will no longer support a rising or even a strong dollar.

Even without a reduction in the U.S. budget deficit, the dollar may fall. When investors, both foreign and domestic, see a more sluggish or inflationary U.S. economy or lose confidence in the ability of America to resolve its economic problems, they are likely to reduce their demand for dollar assets. Similarly, if confidence rises in the economic future of Western Europe and other areas, the demand for dollar assets may decline. At that time the part of the budget deficit being financed by foreign funds will have to be financed by U.S. funds. These will be induced by higher interest rates and will be shifted out of private domestic investment, housing or consumer durables. The decline in demand for interest-sensitive goods might be offset by an increase in net exports as the dollar exchange rate declines. If this does not develop, an economic slowdown or recession could well develop.

CONSEQUENCES OF THE STRONG DOLLAR

While it is convenient to consider the consequences of the strong dollar, it is important to recognize that the exchange rate is the result of the factors noted above. (In the economist's jargon, it is an endogenous variable, not an independent one.) Thus, when we discuss the impact of the dollar, we are really discussing the impact of the budget deficit and the resultant capital inflow. With this reservation in mind, Robert Solomon of Brookings and others note the good and bad consequences for the United States and foreign countries resulting from the strong dollar:

—The rise in the dollar has helped restrain U.S. inflation. Each 10 percent rise in the dollar is estimated to reduce inflation by one percent.

—The net inflow of funds, the proximate cuase of the dollar's appreciation, can be viewed as financing one-half of the government deficit or 15 percent of U.S. private investment. In addition, the capital inflow has put downward pressure on interest rates. If the flow had not materialized, and the dollar not risen, U.S. interest rates would have been higher and domestic investment lower.

—The trade deficit increased unemployment in certain industries that were either dependent on export markets or were competing with imports at home. The fiscal stimulus that contributed to the trade deficit also produced an expanding domestic economy creating jobs in non-export or import competing sectors of the American economy. The lower inflation caused by the trade deficit also contributed to offsetting the jobs lost in certain industries by the effect it had on real income and therefore aggregate demand.

—The strong dollar, however, has had an impact on the composition of output and, consequently, on the composition of employment. The sharp increase in imports and the sluggish growth of exports, due in good part to the strong dollar, have been major factors in the decline in manufacturing employment from 22 percent of the labor force in 1980 to 20 percent in 1985. That this shift in the composition of output has caused severe pain in some industries and communities is not questioned. But other workers, firms and communities have benefited from the same factors that gave us a higher dollar.

—Foreign competition has forced U.S. industry to reduce costs and increase productivity.

—On the other hand, the trade deficit has induced increased demands for import protection which could damage the prospects for economic growth at home and abroad and, as important, could seriously disrupt relations with our major allies.

—Foreign countries have benefited from increased exports to the United States. Indeed, as much as one-third of European growth in the early 1980s was due to such exports.

—On the negative side, interest rates abroad have been held higher in Europe to moderate the depreciation of their currencies and limit inflationary pressures. Inflation, the expected result of a depreciating currency, has not developed in Europe but high interest rates and tight fiscal policies have kept unemployment at 11 percent.

—In the longer run, the dollar seems unlikely to stay high. At some point, investors, both American and foreigner, will be satisfied with the share of dollar assets in their portfolios and a shock, such as a U.S. bank failure, or merely stronger economic expansion in Europe and slower growth in the United States, will see a reduced net capital inflow. The dollar will decline and, eventually, the U.S. foreign trade deficit will shrink. But this will also mean that U.S. interest rates and prices will rise, and investment will falter. Worse, such developments plus government policy to contain inflation and slow the fall of the dollar could trigger a U.S. recession.

The United States can no longer count on large earnings from foreign investments to offset part of the trade deficit now that we are no longer a net creditor to the rest of the world. The longer the high dollar persists, the more the United States becomes a net debtor and the more difficult the ultimate adjustment becomes when exports will have to rise to finance imports and service the growing foreign debt. A U.S. trade surplus may well be required.

This will limit the increase, if not actually reduce, U.S. living standards.

In short, the benefits the United States now receives from the high dollar and the huge U.S. trade deficit—specifically, the sharp cut in inflation and the increased availability of real goods and services for domestic consumption and investment—will have to be given back to foreign countries as the United States is forced to run a trade surplus.

POLICIES TO DEAL WITH THE STRONG DOLLAR

Budget

From the discussion of causes, it seems clear that a reduction of the U.S. budget deficit, especially if brought about through an immediate reduction in government spending, would yield lower U.S. interest rates, make the United States less attractive for investment, and thereby tend to lower the foreign exchange value of the dollar. Further, since a smaller government deficit would be contractionary, the Federal Reserve would probably ease monetary policy to maintain the economic expansion and prevent the growth of unemployment. Such easing would add to the forces pushing the dollar lower.

Conversely, if Europe and Japan were to relax their currently restrictive fiscal policies (to achieve a better rate of economic growth and to offset the contractionary impact of a decline in the growth of exports to the United States), and if they were to adopt tighter monetary policies (to keep inflation under control), a major realignment of the dollar exchange rate would be achieved.

Monetary Policy

As suggested above, international capital flows, and consequently, exchange rates, respond directly to changes in monetary policy. For this reason, some economists have argued that monetary policy should be directed toward achieving the appropriate exchange rate. Of course, this would be possible only if fiscal policy (government taxation and expenditure) were flexible and effective enough to maintain the growth of output and employment and to stabilize prices. Since flexible fiscal policy seems politically unlikely—indeed, in 1985 any significant change in fiscal policy seems most improbable—monetary policy must have an important role to play in stabilizing the domestic economy.

The skepticism about the wisdom of using monetary policy primarily for exchange rate management leads some, but not all, economists to search for other tools to achieve what they perceive to be an appropriate exchange rate.

Three such tools have been proposed—the setting and achievement of target zones for exchange rates, government intervention in the foreign exchange market and capital controls.

Target Zones

One proposal is to adopt a target zone for the dollar which would produce a long-term, sustainable balance on international trade in goods and services in the presence of full employment and reasonable price stability. If the dollar were to move out of the target zone under the conditions noted, it would be a signal that U.S. monetary policy needed to be altered to keep the dollar in its zone.

Setting a target zone presents almost as difficult a set of problems as keeping the dollar in the zone once it has been established. The calculation of the zone depends on what is considered full employment and reasonable price stability abroad as well as at home. And, the question arises as to whether a "sustainable equilibrium" in the balance of payments calls for balance, capital exports (a trade surplus), or capital imports (a trade deficit).

While the concept of a target zone attracts a number of economists, others, including many in the Reagan Administration, reject it. They argue all governments should do is to get their macro-economic policies right; the exchange rate will take care of itself.

Intervention

Once appropriate fiscal and monetary policies are in place, are additional measures needed to achieve an "equilibrium" exchange rate and to reduce undesirable volatility?

Intervention can be used to *reduce disorderly markets or exchange rate volatility*. This assumes, however, that the market does not handle the problem adequately and that importers and exporters cannot limit the problem through hedging in the forward exchange market.

Stanley Black of the University of North Carolina argues that smoothing disorderly markets is a valid reason for intervening. Others, for example, Carter Murphy of Southern Methodist University, argue that only on rare occasions is one able to establish that markets are disorderly so that intervention is rarely appropriate.

The conventional wisdom is that intervention that does not alter monetary policy (that is, sterilized intervention) has not, indeed, cannot, have a lasting influence on the dollar unless the basic economic policies are working in the same direction. Some tens of billions of dollars might be used to intervene. Such sums are almost trivial compared to the well over 100 billion dollars of funds which cross international borders each day. At best, intervention can affect day-to-day fluctuations.

John Williamson of the Institute for International Economics, however, disagrees. He argues that these skeptical conclusions are excessive, and are the result of recent experience of intervention which has been on a very small scale relative to the scope of this worldwide market. Massive intervention, he argues, might be appropriate and would be effective.

For *achieving a basic realignment of exchange rates* rather than reducing their volatility, the case for intervention becomes weaker. Black argues that it could be used as a compliment to fiscal and monetary policy, but to be most effective the intervention should not be sterilized, as is the practice in the United States, but should affect the money supply. However, sustained, massive intervention in one direction could involve relinquishing control of the domestic economy to the vagaries of private international capital controls.

Intervention may also be used effectively as a signal to the private market as to what the government thinks is an appropriate exchange rate.

Capital Controls

The need for, and effectiveness of, capital controls are also controversial, and their use is rejected by many economists. Others, however, like Williamson, argue that capital controls, though a second-best policy in part because they leak, are necessary if exchange rate targets are to be met.

Such controls would not be the quantitative controls the United States imposed in mid-1960s. The most efficient control of capital movements would be through an interest equalization tax—a tax on U.S. payments to foreigners when the dollar is too high (to discourage foreign investment in the United States) and on U.S. earnings from abroad when the dollar is too low (to discourage American investments abroad).

CONFERENCE PROCEEDINGS

The conference convened, at 9:30 a.m., Wednesday, May 1, 1985, in the James Madison Memorial Building, Library of Congress, Mr. Alfred Reifman, Senior Specialist in International Economics, Congressional Research Service, moderator.

OPENING REMARKS—BY GILBERT GUDE, DIRECTOR, CONGRESSIONAL RESEARCH SERVICE

Mr. **Gude**. I would like to bid everybody a good morning. I am Gilbert Gude, Director of the Congressional Research Service, and I would like to welcome you to the 6th floor ambience of our Madison Library Building.

Our conference today is going to look at the economics of the dollar. Why has it been so strong? What are the consequences of the strong dollar on the United States and the world economy? What should we, the United States, be doing, if anything, about the strong dollar?

There is wide disagreement about these questions. I expect you to answer them. I want to thank Al Reifman for bringing you together to focus on this important subject.

Alfred Reifman, our moderator, is a senior specialist with the Congressional Research Service. He's had a long background, as many of you know, in international economic problems—at the Department of State and the Council of Economic Advisers, as well as here at the Library of Congress. He's been involved in many of the major international economic initiatives since World War II, the Marshall Plan, the OECD, the European Common Market, and the reduction in trade barriers under GATT.

Al did his undergraduate work at Michigan, taught at Yale and American University. He has a great love for France and Paris, but he's assured me that this in no way will interfere with his objectivity.

Al, thank you so much for this program.

Mr. **Reifman**. Thank you.

Speaking of France, the fact that we're holding this seminar on May 1 may be symbolic. May Day is International Code in French for M'aidez or "Help Me." And we sure need help on the question of the dollar exchange rate.

While the dollar has declined since it hit a high in March, it's still exceedingly high. In fact, I was worried that we might have to change the title of this session to "Why is the Dollar so Weak?" But so far that's not the case.

To start off, I have asked Jacob Frenkel to give us a survey of the causes of the strong dollar.

THE CAUSES OF THE STRONG DOLLAR—BY JACOB A. FRENKEL, UNIVERSITY OF CHICAGO

Mr. FRENKEL. I will present a survey—a superficial one admittedly—on the various factors which have been suggested as causing the dollar to rise and remain strong.

Let me start with some anecdotes and some light remarks. As I thought of what I am going to say today, I went to my file and asked, "What was said about the dollar on previous occasions?" I picked up one of the previous reports of the Joint Economic Committee. I will not tell you the date nor will I tell you the title. But I can tell you that it will be very hard for you to identify the date just by reading the description of the causes for the dollar problem as described there.

One witness talks about the budget. One talks about interest rates. One talks about monetary policy. One talks about policy being "steady as you go." In short, the only thing that changes is the title of the session.

The title of the session was: "The Dollar Rescue Operations and Their Domestic Implications," December 1978. The problem was, how to deal with a *sinking* dollar. Thus, the issues that we address today have been with us for many years and many of the "explanations" that were given for the weak dollar of the 1970s, are now given for the strong dollar of the 1980s.

We have to recognize that there is little hope for us to account for day-to-day or week-to-week fluctuations in the U.S. dollar and it's not because of our stupidity but because it is intrinsic in the operation of flexible exchange rates, which operate like other asset markets, for example, the Dow Jones stock average.

CONFUSING EXPLANATIONS

We are better off focussing on secular trends and secular implications rather than on day-to-day fluctuations. To illustrate the difficulty of analyzing day-to-day trends, it is instructive to recall recent newspaper analyses:

—The dollar went down, it is argued, because the money supply went up faster than expected.

—Later, we read that the dollar went up because the money supply rose faster than expected, and this will lead to a contraction in the near future. In short, the same change in the money supply is used to explain both a fall and a rise in the dollar.

—Similarly, it is argued that the dollar went up because oil prices rose, easing Mexico's debt problem. On the other hand, when the dollar dropped it was argued that the rise in oil prices hurt oil-consuming and debt-ridden countries.

In short, the same factors are used to explain a short-term rise as well as fall in the dollar. This may be correct for day-to-day fluctuations but it is not useful for understanding longer term trends.

The causes for the high dollar may be thought of as an academic issue. But it has policy implications.

It's clear by now that there is no single cause. In the old days, we said it's all the money supply or it's all the budget deficit, or it's all the safe haven. It's obviously none of the above alone and all of the above.

Is the Dollar Too High and Why?

Is the dollar high? Yes, from the point of view of comparative prices of similar goods here and abroad, of purchasing power parity, obviously we have a very strong dollar. From the poor performance of U.S. exports and the balance of trade, obviously we have a high dollar.

Measured against these dimensions, we have a high dollar. But this does not tell us whether it's too high. There is only one sensible way to define too high and that is relative to what we believe sustainable macro-policies ought to be.

There is a trivial sense in which the dollar is always in equilibrium, in the sense that there is a price and there is a buyer and there is a seller and the market clears. This is not what we mean when we assert that "the dollar is too high." The real question is whether we are satisfied with the outcome the dollar brings and whether we should do something about it.

If we are unhappy with the export performance, if we are unhappy with the rising tendency toward protectionism, then we are unhappy with a strong dollar and in this sense it is too high.

A number of explanations for the strong dollar have been advanced.

First, at the outset of the strong dollar era, it was argued that the strong dollar represented an overshooting that will reverse itself within a short period of time.

A subtle overshooting explanation was that interest rates in the U.S. were higher than in the rest of the world in real terms and to support such higher interest rates investors must expect the dollar to depreciate in the future. But if it is to depreciate in the future, in the short run it must exceed its long-run level.

The overshooting explanation was good for the early phase but it has to be supplemented with additional factors to explain the rise and persistence of the high dollar over the last five years.

Second, with the notion that we cannot explain exchange rate changes, some academic economists resorted to the theory of the bubble.

The theory of a speculative bubble is the construction of a logical system within which the exchange rate goes its way unrelated to fundamentals. It's an elegant theory but I don't like it. As a matter of fact, a bubble explanation alone will not do.

Recently, in the Brookings Panel on Economic Activity, there was a paper by Jeffry Frankel, who concluded that the probability that the path of the dollar represents a speculative bubble is too low to be believable. Therefore, I don't find this explanation satisfactory.

Third, economists fall back on real interest rates. We do know that there is a very high real interest rate by historical standards and we ask, (a), what brought it about; and (b) what does it do to the U.S. dollar?

Successful disinflationary policies are typically accompanied by high nominal and real interest rates. Accordingly, the starting period of the high dollar is a reflection of successful disinflation of the early 1980s.

In addition, the 1981 tax changes increased incentives to invest in plant and equipment and stimulated aggregate demand. These changes—tight monetary policy, expansionary fiscal policy, and greater after-tax profitability of business—raised real rates of interest and led to the rise of the dollar.

Fourth, there is the safe haven argument for the rise in the dollar.

The argument is that the United States has a stable political system, especially relative to what we have observed in both Latin America and the Middle East recently. Instability in the latter areas led to increased demand for U.S. dollar-denominated assets, thereby raising their prices. Further, there has been a diminution of economic risk in the United States. The strong perception that U.S. inflation is out, for a while at least, and that the monetary authority is going to stand firm, lowered the economic risks of long-term investments in the United States, contributing, thereby, to enhanced attractiveness of the dollar.

Fifth, at the same time, economic stagnation and tighter fiscal policy in Western Europe inhibited investment there. On the other hand, in the United States, increased investment and the sharp decline in national savings as the result of the rise in the government budget deficit after 1981 (negative savings) raised U.S. interest rates and attracted foreign capital.

Let me come back to the budget deficit. Those who argue that budget deficits do not have important implications for real interest rates and the dollar remind us that there is a very unstable, weak correlation between the real exchange rate and budget deficits, here and abroad.

We note that the strengthening of the dollar in 1981, for example, was before the budget deficit became large, while the current account remained in surplus. We also recall that in 1975–76 when the budget deficit was large relative to GNP, the dollar was not especially strong and when the current account was in a substantial deficit in 1977 and 1978 the dollar was very weak.

In other countries, again, we don't see the strong positive correlation between government budget deficits and strong performance of their currencies. This weak correlation provided a lot of ammunition to those who said that the budget deficit is not the prime cause of the strong dollar.

These arguments, however, are misleading. Rather than focussing on the budget deficit alone, we must analyze how the deficit is financed. Is it going to be financed by monetary expansion or by borrowing? That's the whole difference.

There are three issues that are critical for an empirical analysis of the effects of budget deficits.

First, we should separate changes in government spending and taxes. There is no reason to believe that government spending has the same effect on the key economic variables—real exchange rates and real interest rates—as an equal decline in tax revenue.

Second, it's important, to distinguish between permanent and transitory changes. The future budget deficit must also be taken into account.

Third, it's very important, and it's not emphasized enough, to ask what government spending is directed at. Is it on tradable goods or on non-tradable goods? For any given level of government spending, the impact on the real exchange rate obviously depends upon where it is spent. If the government generates excess demand for tradable goods, their price (the real exchange rate) will go up and vice versa.

Thus, the empirical correlation between the real exchange rate and the level of government spending depends on the pattern of spending. The rise in government spending raises real interest rates, but since the change in the real exchange rate depends on the pattern of spending, it also follows that we should not expect to find a unique relation between the interest rate and the real exchange rate.

HARD VS. SOFT LANDING

Will the dollar crash?—well, those who believe in the bubble theory also believe that with the burst of the bubble all will be over and there will be no nice soft landing.

Since I don't believe in the bubble theory, I have to go back to the fundamentals. Since I expect a relatively stable and tight monetary policy, and since I also expect that the budget deficit will stay with us at least for the next few years, I conclude that the dollar is likely to remain strong and I do not see the inevitable crash.

All this, of course does not imply that the dollar will not be volatile. On the contrary, I expect that in the short term the dollar will fluctuate up and down in response to new information that policymakers transmit to the market place.

The change of the nominal exchange rate would not have been so problematic if it were not associated with a corresponding change in the real exchange rate. That's what the export sector is worried about. While some other sectors are booming, the real exchange rate of the dollar has exhibited an extraordinary change.

There are very few theories that can indeed explain sharp real exchange rate trends. I think we have to be modest and say that conventional wisdom does not really account for all of the changes in the real exchange rate of the dollar. But, at the same time, there is no doubt that we can identify what are the fundamentals that can cause those changes.

Let me conclude with one question that has occupied many researchers: Are changes in exchange rates a random walk? For practical purposes it is a random walk, which means that we cannot explain the changes from today to tomorrow and from tomorrow to the next day.

This finding, however, does not imply bankruptcy of our theories of exchange rates. Even though we do not know what the exchange rate will do tomorrow, we clearly know what will happen to the exchange rate if you double the money supply or if you double government spending on tradable goods, etc.

In other words, I think we have learned a lot about what fundamentals do to exchange rates. The fundamentals are the macro policy mix, namely, the monetary and fiscal policy mix. In this context I include not only the direct impact of current policies but also the impact of current policies on the perceptions about future policies.

In my remarks I did not intend to break any new ground, rather, my purpose was to put out on the agenda some arguments for further discussion. Thank you.

Mr. REIFMAN. Thank you very much.

The floor is open. Robert Solomon, you have a look as though you were going to comment here.

Mr. SOLOMON. It's impossible not to react favorably to anything that Jacob Frenkel says. He's always interesting and very thorough and very solid.

Jacob, let me just raise one or two quibbles. You talked about budgets without at all making the conventional distinction between cyclical and structural. It seemed a little strange to me.

Number two, people who have had recourse to the bubble hypothesis—maybe out of an inability to explain what's going on—I wasn't going to quarrel with that, but simply to raise the following question—suppose we have recourse to the bubble hypothesis because we can't come up with an adequate, complete explanation for the movement of exchange rates in recent years.

Does adoption of the bubble hypothesis inevitably lead to the conclusion that you have a crash or can't the bubble burst softly, as it were?

Mr. FRENKEL. You are perfectly right that it's critical to define what budget we speak about, structural or cyclical.

I believe that the arguments concerning the overall fiscal stance here and in Europe hold for the cyclically adjusted budget deficits and it is indeed a full employment budget deficit that we compare when we say the U.S. has an expansionary stance whereas Europe and Japan have a contractionary stance.

So you are perfectly correct in drawing this distinction and it's important.

On the other hand, it is also relevant to note that we should not ignore other useful concepts of the deficit. For example, the cash-flow deficit indicates the financing needs of the government and may be a helpful indicator of the contribution of government to aggregate demand.

Concerning bubbles—you asked two questions. First, what is the danger with the bubble theory and second, if the theory holds, what is the danger of the bubble? I think there is a danger in the bubble theory that it may lead to the notion that whatever we do the economic fundamentals will not matter and therefore we do not need to change the fundamentals. That's the danger.

That's why I emphasized that even though we may not account for day-to-day, week-to-week, changes, we should not lose track of the fact that we know very well what some fundamentals do to exchange rates.

The second question is must the bubble burst; and, if yes, will it splash?

The probability that with the passage of time the bubble will burst is very high—meaning almost close to unity—and, therefore, the probability that the bubble can last for very long without bursting is low. Since the dollar kept on going up for a long period of time, the likelihood that it was caused by a non-bursting bubble is low (and diminishing).

If it bursts, will it splash? One can, of course, rule out such outcome. If it splashes are we going to get wet? Yes, if we are not prepared for it; that's why we take an umbrella when the weatherman forecasts rain.

Mr. **Reifman**. We will come back to that. Gary Hufbauer of the Institute for International Economics is coming, but since he's not here yet, I will speak for him. Gary testified that his empirical research suggests that at times the exchange rate is driven by the current account and at other times, by the capital account.

He found that for the U.S. about half the time the capital account seemed to explain the change in the dollar and about half the time the current account.

For Japan, almost all the time the yen was explained by the current account.

Right now, the modern theory and the theory that you have been expounding to us, Jacob, is that the capital account is that major actor.

Do you have any thoughts on Hufbauer's findings.

Mr. **Frenkel**. I find Hufbauer's findings interesting and useful. As a general rule, however, I have never been able to cut a piece of paper with one blade of the scissors. So ultimately, obviously, it is both the capital and the current account, that jointly drive and are driven by the exchange rate.

It reminds me of the discussion that we had years ago about the demand theory of the U.S. balance of payments versus the supply theory of the balance of payments and, indeed, in some periods it is the demand that drives things and in some periods it is the supply that drives things. By analogy, which blade of the scissors that does the cutting may depend on the relative strength of your thumb and the other finger that pull the two blades. But ultimately, both do the job.

One more word about timing. We know that the capital movements respond to policies much faster than trade in goods.

The capital account leads the current account, in the sense that, in comparison with the current account the capital account is responding much faster to current policies and to anticipations concerning future policies, and therefore the current account seems to lag and its association with the exchange rate may seem to be weak. Further, suppose that our expectations about the future were not realized. In that case the capital account and the exchange rate which moved on the basis of anticipations will turn out to have moved in the wrong direction while at the same time the trade account has not yet changed at all. Under such circumstances we will observe unstable correlations between the exchange rate and the various accounts of the balance of payments.

Mr. **Black**. One of the things that Jacob said was that the dollar wasn't going to crash because the deficit and monetary policy are expected to remain as they are now for the foreseeable future. And I suppose one might be able to agree with that if you agreed, as I do, that the bubble theory probably isn't the right theory.

The question is, can the deficit and the monetary stance stay where they are? That's the question. They don't appear to be sustainable for a variety of reasons.

For example, we are concerned about the buildup in the U.S. debt and the interest burden on it, consuming a larger and larger proportion of the tax revenues. We have the trade account implications generating pressures from industry for import protection. We have the foreign interest burden which is going to begin to appear when our net debtor position shows up.

These kind of things suggest increasing pressures on the Congress and the Administration to change the budgetary situation with presumably an implied change in monetary policy which should lead us in another direction.

When that will happen is anybody's guess, but that gives a bit of a different interpretation, it seems to me.

Mr. **Frenkel.** Well, I agree with everything you said except for the very last conclusion, that you seem to have given a different interpretation. I think that you are perfectly correct to say that there are pressures building up.

On the other hand, I don't think that we have here a boiling kettle with no valve, that somehow at some stage it will all burst. But we also know, especially after the discussion on the budget during the last few weeks and the vote yesterday that changes in the budget are probably going to be introduced in a very gradual way. The pressure is there, but they are going to respond only gradually. It is precisely because of these gradual changes that I think that the alleged crash will be converted into a much softer landing. There is, however, one proviso: since expected future policies matter, even a small change today might convince the market that there will be a fundamental change in the future and this will mean a lot and may induce a sharp change in the dollar.

But I don't think that anyone believes that only future policies matter, for the same reason that we do not believe that only current policies matter. For this reason I believe that the landing can be much softer than what is predicted by some doomsday forecasters.

I think it's important to note that macro-policies do not change overnight, especially when the Administration has a longer horizon than a few weeks or months. As a result, I think that proponents of the crash theory may lead us to panic recommendations for very drastic changes that will never come through in any normal course of events. I really recommend that we better think about a gradual landing and therefore about the gradual policies that are appropriate for such soft landing.

Mr. **Black.** I didn't mean to suggest I was a proponent of the crash theory. I was just pointing out that the logic of the situation implied a change in these factors.

But there is another factor which is likely to come on the scene which would very likely force a change in some kinds of policies at least, and that's a recession developing, which would presumably put pressure on the Fed to let interest rates decline significantly. It would tend to develop naturally anyway. And, as a result, we might have the interest rate factor certainly shrink in its ability to hold the dollar and so we might see a considerable movement down at that time. I don't want to call that a crash, though.

Mr. **Reifman**. Bob Solomon, did you want to comment on this?

Mr. **Solomon**. It occurs to me that the word expectation has hardly been used in this discussion so far.

Mr. **Frenkel**. The word "future" was used. The link between the present and the future operates through expectations.

Mr. **Solomon**. I thought it needs a little more stress in this discussion than what we have had and this fits into what Stan said, but it fits into the bubble hypothesis. Those that believe in the bubble have some notion that people are buying dollars or selling Deutsch marks because they expect the dollar to go up for whatever reason, and this feeds on itself. That's the essence of the bubble, I think. Or one can argue that the higher nominal interest rates in the United States are attracting funds because these higher interest rates are not accompanied by an expectation of a depreciating dollar. At the very least, people expect the dollar to remain stable or go up or they wouldn't be attracted by a three or four percent higher rate of interest which could be wiped out in three days in the foreign exchange market. It takes a full year to earn that three or four percent.

So expectations are implicit in a lot of what we are saying, expectations about the exchange rate, and that has some relevance to the question of a crash. We haven't defined a crash either, by the way, but I presume that what we mean by a crash is a very large movement in a very short period of time. Maybe somebody else wants to define it. I'm sure Steve Marris has defined it in his book which we haven't seen yet.

Mr. **Reifman**. We've heard about it.

Mr. **Solomon**. This gets me to this crash question. Suppose something happens in markets, the unexpected, Jacob, that changes people's expectations about the future. Then presumably you do have to get a downward overshooting in order to get people to hold the dollars necessary to finance the continuing even if declining current account deficit. That could or could not be a crash, depending on how far it goes.

Mr. **Williamson**. The dollar is according to my estimates already some 40 percent overvalued, which implies the need for a decline of about 30 percent to get back to some sort of sustainable level. With an overshooting thrown in, one would be talking about a decline of the dollar of the order of 40 percent from present levels.

One has to ask whether that could happen rapidly without precipitating a loss of confidence that could be stemmed only by extremely high interest rates. If that occurs in the context of a weakening economy, a very deep recession is possible.

One also has to ask whether there would be offsetting changes in fiscal policy abroad? Presumably, one can assume that in the context of a dollar crash other countries would be only too happy to relax their monetary policies. But if the United States finds itself in the sort of situation that Mexico was in three years ago, with a total loss of confidence, it would have to tighten up fiscal policy in a hurry. Where would one get the demand expansion in the rest of the world to offset that?

This is the sort of outcome which worries people like Stephen Marris and myself.

I want to go back and ask whether the speculative bubble is the only theory of the exchange rate which we can imagine generating this type of sudden crash? Are there not exogenous shocks that could have the same effect? People ask me what exogenous changes I have in mind: clearly there are all sorts of things that might happen. They are not things like the current account deficit coming in a bit faster and a bit bigger than expected, but things like Paul Volcker's plane crashing and his replacement not being as widely respected as he is.

So we have got the possibility of exogenous events, as well as the speculative bubble theory. Let me try and give a different gloss on that, because I think that there have been elements of the speculative bubble in the picture. The runup of the dollar in January and February is very difficult to explain in anything other than a speculative bubble. The markets appeared to get it in their heads that the dollar was going even higher and everybody jumped on the bandwagon. Who knows, the dollar might be worth four Deutsche Marks by now if the Bundesbank and the other European central banks hadn't jumped into the market very heavily and done something to turn it around and chop off at least that latest rise.

One theory which might lead you back to the speculative bubble view is what I like to call the Ronald Reagan theory of the exchange rate. The Ronald Reagan theory of the exchange rate says that market operators aren't interested in making money but, rather, they want to show which country's policies they have confidence in, and they put their money into those currencies. Of course, none of us believes that because we have all been trained as economists and we know that people are motivated by nothing more than pecuniary self-interest. While I think we take that a little bit too far in some contexts, I doubt if people are motivated by anything other than that in the exchange markets.

On the other hand, it may be that market operators believe that other market operators are over-impressed by confidence factors, and so one gets the Keynes beauty contest type of situation in which everyone in the speculative market is asking themselves not what they think fundamentals should imply but, rather, what they think other market operators are thinking. That type of reasoning is capable of driving speculative bubbles.

Now to me, the big problem with the speculative bubble theory is not so much Jeffrey Frankel's analysis, but, rather, the fact that when the bubble was pricked in early March, the dollar only fell back a small part of the way to what anyone regards as equilibrium. The dollar was left at a height which is very difficult to explain on the basis of the orthodox theory of high current and expected future real interest rates being used to discount back from what I term "fundamental equilibrium". Given that the dollar is now 30 to 40 percent above fundamental equilibrium and that there is a forward discount of 3 or 4 percent a year, it would take 10 years to reach what is now fundamental equilibrium.

The trouble is that if you follow that trajectory by then the medium-term norm will be greatly below its present level. There are two reasons. The first is that because the initial trade deficit is so large (say $120 billion), even equal growth rates of exports and imports from here on, say of 8 percent per annum, would imply a growth on the deficit of about $10 billion per annum. The second is the debt which is building up. While one does not have to worry about servicing the inflation-compensation component of the nominal interest rate, that still leaves the need to generate another $5 or $6 billion a year improvement in the current account to service the increase in the debt which is building up. That's $15 billion basic improvement that one needs to be generating through depreciation and you won't get that much by a 3 or 4 percent depreciation, not according to the conventional rules of thumb.

So that is my basic problem with the orthodox theory to which Jacob is still very attached.

Let me mention one other theory which perhaps sounds a bit old-fashioned but does seem to fit the current facts. This treats many of the capital flows as essentially exogenous with respect to the exchange rate. If you talk to the managers of the Japanese life insurance companies who are now putting many billions of dollars a year into the U.S. market, they say, "We are going into the market for ten years. We assume exchange rates will balance out over that time horizon. We just don't look at them."

The big turnaround in the U.S. capital account in recent years has been in bank capital. Bankers aren't taking positions based on exchange rates. Indeed, some of them tell you that they used to take positions to some extent but they have withdrawn from that, and now they are trying to pull in their horns overseas because Congress is so critical of them for having lent so much abroad.

There has been a turnaround of some $60 billion a year in those bank capital flows, which have absolutely nothing to do with expectations of future exchange rates. Perhaps the extent of capital mobility in response to exchange rate expectations is much more limited than we have come to assume. Those flows may indeed drive the exchange rate from one day to the next, but the basic underlying position to which they drive the exchange rate is one which is determined by a balance between the exogenous capital flows and the current account. That story seems to make some sense, and is indeed the sort of story many of us would have told ten or eleven years ago before we ever heard of rational bubbles.

That situation again has the potential for a large, sharp fall in the dollar, because while these capital flows may be exogenous with respect to the exchange rate they clearly could change for some other reason. U.S. banks cannot continue to run down their foreign assets indefinitely because they will eventually run out of foreign assets.

Mr. REIFMAN. Thank you, John. One footnote, please when you call the dollar overvalued by 30 or 40 percent, would you tell us about your FEER, your Fundamental Equilibrium Exchange Rate, and what you're looking at in terms of the U.S. balance of payments?

Mr. WILLIAMSON. That figure comes from a calculation which assumes that there is an underlying capital flow of $12 billion into the U.S. at the present time. This is peanuts compared to where we are at the moment, but it is an inflow rather than an outflow. It assumes that that is a sustainable position in the medium term and then asks what exchange rate change would be needed to get the current account deficit down to that level without major changes in real output levels in the different countries.

Mr. **Frenkel**. John Williamson is absolutely right by saying that we really have to speak about which policies are sustainable and which are not. There is just no question about it. The issue is: for policies that are not sustainable, how fast are they going to be changed in order to arrive at a sustainable level, and that's really the real question at hand.

John argues, and I agree, that there are a lot of exogenous changes that can take place. I'm a bit puzzled however, with the inference that he draws from it. It is true that there are exogenous changes that can take place. It is also true, as he indicated, that it's very hard for us to pin them down or to anticipate them. But if that's the case then let's focus on what we do know rather than confuse policy makers with unconstructive discussions of what we don't know.

So while there is no doubt that there are a lot of exogenous things that should cause us to worry, but unless we just enjoy worrying for the sake of worrying, as long as we cannot do much about those, let's focus on issues on which we can contribute to operational policy making.

Now that's where I come back to my earlier remark about the bubble theory. As attractive as one can find that theory, I think that since it does not help policymaking in identifying the root cause of the problem, we should not worry now about it.

Ms. **Krueger**. I agree with the thrust of Jacob's argument. However, whether the dollar crashes or not is not the central issue for policy. The "bubble" may be a little bit of a red herring because the real questions are: 1) the sustainability of the capital inflow; and 2) the extent to which, assuming it is not sustainable, there may be policy options to improve the economy as the capital inflow diminishes and the dollar depreciates in terms of purchasing power. Whether it might depreciate rapidly or slowly is the next question. And, if the answer were "rapidly", there would be further questions as to possible policy responses.

Before I go further, I'd just like to report to Jacob that I was in Europe a couple of weeks ago, picked up the Herald Tribune, and that day the headline was, "Dollar Declines on No News." [Laughter.]

But to come back to my main point, I think everybody would agree that the current stance of American monetary and fiscal policy is unsustainable, in the sense that we have a tighter monetary and looser fiscal policy than warranted on grounds of macroeconomic balance. In a closed economy that would drive up real interest rates and possibly the price level. In an open economy there's a safety valve which is the real exchange rate and the capital inflow which permits more investment than could take place in a closed economy.

However, the part that Jacob Frenkel did not emphasize, and that gives me pause, is something that John Williamson was close to, namely, that the longer this unsustainable policy continues, the more U.S. liabilities to foreigners are accumulating and the more the U.S. is decumulating foreign assets.

It is possible to interpret events since 1981 as follows: There have been a number of quantifiable, fairly large changes that have shifted either asset demand or supply in ways that sustained the demand for dollars. Jacob Frenkel already mentioned the change in the tax law. There was also financial deregulation and, therefore, increased return on holding U.S. financial assets. Also, there was the removal of the foreign 30 percent withholding tax. Finally, as John Williamson mentioned, the U.S. banks reduced their supply of dollars to developing countries as they ran into difficulties.

Now these changes were certainly not entirely exogenous. But each of them in a sense has represented an upward shift in the demand for dollars. It can be argued that the shifts sustained the unsustainable longer than would otherwise have happened.

If you take that view, you then have to argue that the longer this continues, the greater is the dollar asset overhang in the international markets. That in turn implies greater dollar overvaluation in your sense, or alternatively, the greater potential for difficulty. It does not matter why, but potential difficulty increases simply because the trade deficit is getting bigger as a function of this high real exchange rate.

As the trade deficit increases, the supply of dollar assets being thrown on that market is getting larger and it would require even-larger exogenous events to sustain dollar appreciation. On that reasoning, one would forecast that the dollar will turn around. It might be gradual or it might not be, but surely it will reverse direction. And if you argue that way, then you raise a very different set of policy questions. The critical issue is, is there enough evidence now (a) that the dollar relative to its longer term purchasing power parity equilibrium is at a higher than sustainable level, and (b) if the answer to (a) is yes—and this is a different question and I think it's important to focus on it—are there any implications for exchange rate policy.

Mr. SOLOMON. Just for the record, I think it might be useful in view of what Anne just said to report that in a Brookings Panel on Economic Activity meeting early in April, two independently written papers were presented. What they did was to take a look at the world portfolio and put the increase in dollar assets against the size of the growing world portfolio and while this was not a rigorous analysis, nevertheless, the suggested conclusion was that the world might go on for quite sometime absorbing the increase in dollar assets consequent on the U.S. current account deficit.

It didn't follow from that analysis that we're near the end of the road. I'm not going to appraise those papers. I'm just reporting so we can put it in the picture here.

Mr. REIFMAN. This is similar to Dick Cooper's statement at the same meeting that world savings outside of the United States are about a trillion U.S. dollars, and the United States is taking only $100 billion, or ten percent of these savings every year. Couldn't we go on forever taking ten percent of world savings? Maybe that's a moral issue.

Mr. FOX. Well, I guess we've slipped into the nature of the dollar coming down before we decided whether the dollar is overvalued. I'm willing to do that, but it seems to me that the questions that have to be looked at are the ability of the budget deficit and the current account deficit to be financed.

It seems to me both can be financed more or less indefinitely provided there's no recession, provided there's no significant inflation, and provided there's no real bank failure or shock of that nature.

Now if you're looking at probabilities, I'd say the probabilities are that at least one of the three would come along in the next two or three years.

I conclude from that that the scenario of the soft landing is wishful thinking and that the course of policy should be to deal with the more likely events leading to something other than a soft landing.

Mr. REIFMAN. Thank you. We will want to discuss soft landing and hard landing in a few minutes.

Mr. BLACK. I just wanted to note what I thought was a similarity between Jacob's argument that the fiscal policy differences between the United States and Europe could be predicted to lead to a high dollar because the U.S. has thereby been led to import capital and what John described as an old-fashioned theory that a shift in capital flows would normally lead therefore to a change in current account and depreciation of the dollar. It seemed to me the same story.

It's a different cause of change but the shift in the capital account is the same.

Mr. MURPHY. The discussion has proceeded for some time in terms of bubbles bursting and splashing and splattering. It seems to me one might try to pin down more tightly the notion of what a bubble is.

Jacob, for example, referred to the idea that the capital account is led by the future and that the current account reflects the past. Clearly, the pressures on the exchange rate that can result from the interactions of these differently motivated transactions can lead to "overshooting" and to other movements in the exchange rate which are difficult to sort out. In fact, one can think of a number of reasons that an exchange rate may overshoot or undershoot its intermediate-term value, none of which constitute bubbles in the sense in which I think we mean to use that term. In particular, there can be lags in all kinds of price and quantitative adjustments which will give rise to excessive adjustments in the exchange rate in the short-term.

I suspect that what we mean by bubbles is the kind of bandwagon effect in which, because of limited information, people bet on movements in the rate rather than on any idea of where the equilibrium rate might lie. Such bandwagon runs in the exchange rate—and earlier this year we had that kind of phenomenon and it was turned around—always tend to burst to the extent they are based on wrong information, and they burst reasonably quickly, and they splatter a little bit.

The other kinds of overshooting and undershooting, however, need not burst very dramatically. If they are based on inertial lags, they will yield as the inertia is overcome. If they are based on inaccurate information, they will change as rapidly as better information accumulates.

I am trying to say that bandwagon effects may burst with a splatter and that other kinds of "overshooting" by the exchange rate are less likely to. Unfortunately, it is all but impossible to ascertain what forces are leading to the exchange transactions we observe in any short period of time and hence what are "bubbles" and what are not.

Second, I ended my listening to Jacob Frenkel's very interesting discussion, with most of which I fully agree, without knowing whether or not he thinks the dollar is overvalued. He gave a rather peculiar definition of overvaluation, and that's the only negative comment I have to make on anything Jacob said. His definition was, in effect, that the dollar can only be overvalued in terms of what we think macro-policies ought to be. I must admit that I can scarcely think of a less objective definition against which to compare the existing exchange rates.

Presumably, since Jacob thinks that fiscal policy ought to be a little less expansive in this country or a little less tight abroad, then he thinks the dollar is overvalued. Yet at the same time he says that the dollar is being driven by fundamentals which he doesn't think are going to change very quickly, and I think in that sense he doesn't think the dollar is overvalued. I'm not at all sure how he stands on this matter.

Finally, let me respond to Frenkel's view that there is unlikely to be an early decline in the value of the dollar. For my part, I feel some agreement with John Williamson on that score. Putting it succinctly, there has been a kind of portfolio rebalancing in the past three years as a result of the ending of the inflation and the consequent overhang of domestic and foreign indebtedness. This portfolio rebalancing may be nearing its completion. And if that is so, then we must begin to look forward to the effects of the allocation of the flows of new savings. These flows will create different presures on the balance of payments than have the total flows of the past few years. One does, after all, read in the press these days that the North American and European banks are beginning to look again for opportunities for placement of funds in third area countries. This is to say that many of the forces which have given strong pressure to appreciate the dollar in the past 18 months may be coming to an end, and we may be moving into a new set of circumstances.

Mr. Cox. One might put the question of defining the crash a little more concretely. We have taken five years for the dollar to rise from one and three quarters Deutsche marks to three and a half and back a little bit, and if it takes five years for it to go back down to one and a half Deutsche marks, whatever that comes out to be in terms of other currencies, is that a crash?

Is it conceivable that it could take five years for such a long slide to happen? Is that, if not a crash, at least sufficiently severe a change in relationship, sufficiently a severe misalignment to require some kind of counter-action on the side of policy?

Suppose it only takes two years for the dollar to drop from where it is now to half its value in terms of the major foreign currencies. Is that a crash? Is that a serious development?

The rise we have seen over the last five years we have regarded as incredible, startling, spectacular, but it hasn't resulted in financial panics. It may have resulted in a few mishaps for certain firms, certain banks, certain brokerage houses, but it hasn't resulted in wholesale disaster.

If the dollar falls back by at least that much in half that time, is that likely to result in some kind of economic calamity or just a good deal of inconvenience for a lot of people?

I might put the adjustment timing question in that kind of a framework and ask people what conclusions they might draw.

EQUILIBRIUM OF DOLLAR EXCHANGE RATE

Mr. **FRENKEL**. I think one way to sum up is to add a footnote on some of the remarks that were made here especially in the last few minutes.

I think that Carter Murphy brought up a very important point, which is, when we are talking about what will happen to the dollar, there must be an implicit assumption of what is the equilibrium. He said that the definition that I used was somewhat ambiguous. And I agree. But I'm willing to defend it as the only operational definition.

Mr. **REIFMAN**. Would you repeat your definition?

Mr. **FRENKEL**. I will. A trivial statement is that the equilibrium value of the dollar is that price for which demand equals supply. There is no doubt that the value of the dollar today satisfies that statement.

While this definition is very precise, it's very useless.

Therefore, when we talk about the equilibrium value of the dollar as an issue for concern for policy, implicitly we say that an equality between demand and supply is not good enough. Rather, we ask ourselves, whether the market clears at the level that generates satisfactory outcomes. Satisfactory in two senses: (a) is it sustainable and (b) do we like the consequences.

I think those are really critical issues. This brings me to an admittedly subjective statement. We cannot speak about the misaligned dollar without saying that the policies that are responsible for the value of the dollar are misaligned.

That's why I was looking at the fundamentals. In this context we may ask: Is fiscal policy too expansive? Is monetary policy too tight? All should be measured, relative to some desired export-sector performance, inflationary performance, growth, unemployment, etc. Unless we agree on a set of targets we cannot have a serious discussion.

I can tell you right now that it's perfectly possible for two intelligent people to look at the same data and have one conclude that the dollar is overvalued while the other concludes that the dollar is undervalued. Such difference may just reflect different judgments on the desired set of policies.

In this present instance there might be some more agreement since we all feel that a fiscal deficit of $200 billion a year is not sustainable. In this sense we may conclude that the dollar is misaligned.

It took the deficit five years to go up. Will it take five years to go down? I really do not know. I'm not sure that it is the economist's comparative advantage to assess how fast policy measures change.

I think, however, that a casual observation reveals that even though those policies are not sustainable, they do not change sufficien~~tly fast~~.

Unless there are additional exogenous reasons, I do not believe that a crash will be caused by a sharp change in monetary and fiscal policies.

We talked about two deficits—the budget deficit and the current account deficit. Do we really have two deficits? Do we need two sets of macro-policies in order to deal with these two problems? My answer is no!

The two deficits are part and parcel of the same set of macroeconomic policies. As a matter of fact—and that's what Anne Krueger alluded to—since we have a budget deficit of $200 billion, it has to come out somehow from the system. In a closed economy, if we have budget deficits the private sector is crowded out through higher real interest rates. In the open economy, the budget deficit crowds out the private sector through both a higher interest rate and a higher real exchange rate.

So of this $200 billion budget deficit, $100 billion is financed through the trade account. The additional $100 billion is obtained through the conventional interest rate mechanism of crowding out.

In a way, you can think of the current account deficit as part of the solution necessary to bring consistency to the system with the large budget deficit.

The reason why I do not treat both deficits in the same way is that even though both are endogenous, the cyclically adjusted budget deficit is more closely tied to policy than the current account balance.

I think the budget deficit is closer to the policy angle than the current account which is more often the response, and I want to emphasize again, so as not to be misunderstood, the budget deficit is an endogenous variable but in terms of the spectrum, what is closer to the policy maker, it is the budget deficit. Take care of that and you will have taken care, to a large extent, of the current account.

Mr. Cox. Could I ask Mr. Frenkel one question? Are you concerned about the prospect of a U.S. recession in the next couple years and what that might do to the budget deficit or to the confidence in the U.S. economy and the exchange rate?

Mr. **Frenkel**. Definitely, yes, but being concerned about it does not imply that the possible recessionary tendencies should be attributed to the exchange rate. The appreciation of the dollar can indee~~d have rec~~essionary implications, no doubt about it. But this appreciation of the dollar is not the cause for the recession. Rather, the monetary and fiscal policy mix is the root cause.

Mr. Cox. What about the other way around, the impact of the recession on financial confidence in this country and therefore on the exchange rate?

Mr. **Frenkel**. Well, there is no doubt that it goes both ways: higher real exchange rates induce recessionary tendencies and, by the same token, recessionary tendencies may induce the U.S. economy to be a less attractive place and therefore may influence the exchange rate. The direct effect of a recession on the exchange rate is probably weaker than the influence of the exchange rate on economic activities. But again I want to emphasize that we should not focus on the link between the exchange rate and economic activity. I would rather focus on the link between economic policies and economic activity, since, ultimately both the exchange rate and the level of economic activity are the manifestations and the consequences of economic policies.

THE CONSEQUENCES OF THE STRONG DOLLAR—BY ROBERT SOLOMON, BROOKINGS INSTITUTION

Mr. SOLOMON. When one is trying to analyze the consequences of a strong dollar in particular and of moves in exchange rates in general, one has to be able to answer the question: can you imagine a conterfactual path for the exchange rate and counterfactural polices that might have generated a different exchange rate from the one you are actually trying to analyze?

If you can't do that, it's sort of meaningless to go through the exercise.

Most of us can imagine without too much difficulty that the dollar might have followed a different path. From the discussion here this morning, one would have said that if the mix of fiscal and monetary policies in the United States had been different in the last five years, very likely the dollar would have gone up considerably less than it did.

Second, by way of preliminary observation, and this is very consistent with what Jacob had just been stressing, any analysis of the consequences of a strong dollar, or exchange rates movements in general, ought to recognize that exchange rates are endogenous variables. It's not appropriate to take the appreciation of the dollar as a given and to look for its consequences. Rather, one has to take account of the variables—the policies, and maybe nonpolicy events as well—that drive the dollar, and look for the combined impact of those policies and the exchange rate on whatever it is that one is interested in.

At the same time one needs to ask the question: what would be the cost of the policies that would have had to be pursued to prevent the exchange rate from moving to this undesirable extent in this undesirable direction, if that's the judgment that's being made.

With those preliminary observations, let me talk very briefly about the sorts of consequences that may have occurred just to provide some background for the discussion.

We can look for consequences for the real economy under the following headings: resource allocation effects, effects on trade policy, effects on inflation, price levels, and effects on rates of economic and employment growth. All of these may occur both in the United States and in other countries.

A fair amount of literature exists on the effects of the volatility of exchange rates on the volume of trade. Up to now that literature hasn't produced very definitive results. That question addresses the effects of short-term volatility, the day-to-day random market movement of exchange rates, and then asks: Does that type of short-term volatility affect trade? What we're looking at here are not the effects of day-to-day movements but the effects of medium-term swings in exchange rates on real economic variables.

Resource Allocation

There has been little systematic and careful work so far on any of these questions. On resource allocation I know of just two articles (by Marie Thursby). They took a look at fluctuations of export volume on the theory that if export volume fluctuates more under floating than under fixed exchange rates you may get more resource allocation effects. They didn't find that export volume had in fact fluctuated more under floating than under exchange rates.

Those are early articles, and very preliminary, yet there is nothing else in the literature that I know of that has gone very far with that subject. We have had a lot of anecdotal evidence recently in the newspapers about American corporations sourcing abroad, shifting operations aboard, as a consequence of the strong dollar. Whether this involves shifts in resources or just variations in the intensity of use of resources in the United States and aboard is the question one would want to answer before making judgments about costs of the strong dollar in terms of resource allocation effects.

Trade Policy

Let me go on to trade policy. It's certainly conventional wisdom that the appreciating dollar is generating increasing pressure for protection in the United States and I hardly have to say this up here on Capitol Hill. This hypothesis I think deserves careful scrutiny.

If you look at the support for an import surcharge in the American Congress, my impression is that it is directed primarily against Japan. Instead of being directed all that much against imports from Japan, it seems to be directed against Japanese trade policy, since it's being used as a device to persuade Japan to open up its markets. So the import surcharge proposal may not be all that much of a protectionist device.

Second, in the literature Rachel McCulloch (University of Wisconsin) has made the point that once you distinguish between the underlying motives for protection and its public justification, people may point to the strong dollar as a reason for asking for protection, but those industries that are cited in support of an alleged link between overvaluation and protection are the standard industries that always want protection—textiles, steel, sugar and shoes. These are industries, as she puts it, with chronic competitive problems, not healthy industries put temporarily into the red by an overvalued dollar.

Now that was published a year and half ago and written earlier and maybe the picture is different now. There may be a longer list of industries than those. Certainly electronics would have to be added and maybe others.

Inflation

It is clear that the reduction of inflation in the United States owes a significant amount to the appreciation of the dollar since 1980.

One would have thought that this was a zero-sum game, that there would be price-raising effects in countries with depreciating currencies offsetting the deflationary effects in the country that had the appreciating currency. Yet we look at Europe and Japan and we find rather low rates of inflation, particularly Germany and Japan. So maybe it hasn't been completely symmetrical. Perhaps the cost to Europe corresponding to the anti-inflation benefit to the United States has been higher interest rates and slower economic growth rather than higher inflation. That is, the Europeans are said to have kept their interest rates higher than they would like in order to try to dampen the depreciation of their currencies. They have succeeded in keeping their prices from going up perhaps by maintaining slack economies, but at the cost of high unemployment. That's a hypothesis.

On the more general question of whether a floating rate system somehow makes the world more inflationary, I think the literature that exists tends to be negative on that issue.

ECONOMIC GROWTH AND UNEMPLOYMENT

Finally, on economic growth, we are all aware that the growth of real GNP in the United States has slowed more than domestic demand as current account surplus has increased. Roughly one-third of the increase in domestic demand has leaked abroad over the three quarters ending March.

More generally, however, it's worth noting that in Europe slower growth was attributed in the late '70s to a depreciating dollar and tends to be attributed in the early '80s to an appreciating dollar, and that's a little puzzling. More must be going on in Europe than the exchange rate effects.

This takes us back to the point that Jacob made earlier and that should be made loudly this very week of the Bonn Summit, namely, the fiscal policy in Europe and Japan has been quite restrictive if one looks at it on a structural budget basis, i.e. cyclically adjusted basis. Broadly speaking, if you take the seven Summit countries as a group, you find no net change in fiscal stimulus over the last five years; the stimulus of U.S. fiscal policy has been completely offset by fiscal restraint in Europe and Japan.

So this last point I'm making fits in very well, as I think some of my other points do, with the broad generalization from Jacob that one should look not at exchange rates alone but at the policies that affect exchange rates or the policies that affect the variables that we think might be affected by exchange rates.

Mr. REIFMAN. Thank you.

Bob, one of the issues that come up frequently is that U.S. unemployment is due in good part to the high dollar. Did you want to comment on this, on the overall level of unemployment and the composition of unemployment among economic sectors?

Mr. SOLOMON. Well, people say "x" million jobs have been lost in the United States because of the high dollar. I would make a distinction between the period in this recovery up to mid-1984 and what has happened since then. Up to mid-1984, the U.S. economy expanded at a very rapid rate. It is true that the current account deficit was increasing. That means that GNP, or output, was rising slower than domestic demand. But I find it hard to imagine that policies pursued by the Federal Reserve, given the fiscal policy, would have permitted a more rapid growth of American GNP even if we hadn't had a growing current deficit in the balance of payments during that period.

In 1984, real GNP increased something like 6 to 7 percent year over year. I just can't believe the Fed would have permitted it to grow faster. So I can't believe that we lost jobs up to mid-1984 as a result of the high dollar and the consequent growth of the current account deficit—not that the current account deficit was completely attributable to the strong dollar because it was also attributable to the faster growth of this economy than those abroad.

Since mid-1984 when expansion of GNP in the United States has been something like 2.5 percent annual rate, clearly GNP had the capacity to grow faster. As I said a little while ago, over that period, while GNP grew something like 2.5 percent, domestic demand grew roughly 3.5 percent. That one percent is a leakage and behind it one can certainly talk about employment. No doubt employment is lower today and it has been lower over the past nine months to a year, as a result of the growth of the current account deficit, which in significant part is a result of the strong dollar. But I would divide the periods that way.

Mr. BLACK. Well, I've got three comments on what Bob has said. One is on his call for comments from anybody who could add to the discussion about the real effects of floating rates along the lines of the Thursby study. I think that this would be an appropriate one—the IMF staff study of July 1984, "The Exchange Rate System; Lessons of the Past and Options for the Future," comparing floating exchange rates, how well they are working and so forth. It has in it some calculations which try to indicate to what extent current account deficits have been larger or smaller during the period of floating rates than they were during the period of pegged rates relative to GNP. They show that for the seven largest countries the average current account deficit has been smaller during the floating rate period than it was during the pegged rate period. Furthermore, these deficits have been less persistent in the sense that they are less correlated with their past values.

On the other hand, for the small industrialized countries, they show that these current account deficits relative to GNP have been somewhat larger than they were during the pegged rate period and somewhat more persistent. So there's a bit of a mixed story but it's a story.

They do the same calculations, since obviously the current account is not the whole thing you want to look at, they do the same thing for the current account plus some kind of normalized capital flows, a moving average of the past three years or something like that, and basically the same story emerges. These findings suggest that exchange rates are an effective means of adjustment.

The second point is on the unemployment effects of the high dollar. I think I understand what you're saying, but it seems to me you're focusing entirely too much on the very recent period since 1983. I think it would be easy to argue that the recession was much deeper because of the fiscal-monetary mix that we had in 1981-82 which led to such a strong dollar. In fact I argued at the time that the particular mix of policy that was chosen reflected a very high anti-inflation weight for policy objectives, that one didn't have to aim quite so hard at the inflation target, and that was a policy choice, and the result was a higher rise in unemployment during the recession than otherwise would have happened.

My third point relates to the sick industries which you mentioned, which have gotten sicker as a result of the high dollar. I was talking to some newspaper editors down in North Carolina on a program with some of the textile people. You can imagine what they were saying. They've got a bill to ask for a rollback in textile imports because they don't think the multi-fibers agreement is doing what it ought to.

Mr. SOLOMON. They've already got protection.

Mr. BLACK. I know. They've got a 23 percent average tariff on apparel, I believe. You can calculate that the implicit cost of the quota on apparel is another 23 percent. You can calculate this by looking at the price for which quota tickets sell in Hong Kong. So that amounts to about 50 percent total protection on apparel imports. Of course they want more. Now why? Because of course they've got 40 percent average appreciation of the dollar which takes away most of this protection under which they were living happily up until 1980. Since 1980, they've gotten into trouble and I can understand their motives but I am not sympathetic with their proposal. Of course, they have had something like a 70 percent increase in imports in the United States in apparel.

Mr. SOLOMON. You say that they've had a 40 percent appreciation of the dollar. Has the dollar appreciated 40 percent in real terms against the companies with which they compete or the companies that export to the United States?

Mr. BLACK. Well, they also compete substantially with Europeans.

Mr. SOLOMON. In the United States?

Ms. KRUEGER. Yes.

Mr. FRENKEL. I just want to add a footnote to Stan Black's remarks and also to add another dimension to the discussion of the consequences.

First, to Stan's remark, he reminded us of the IMF study that looked at the relation between current accounts and the move to a flexible exchange rates. I just want to emphasize what he said at the end. It's a terrible criterion to look at the magnitude of current account as a fraction of GNP and from this to infer whether the system works well or not. As a matter of fact, suppose we found that the current account was balanced at all times. It would have meant that no country could have smoothed out the level of consumption in view of output fluctuations. I would have meant that no country resorts to world capital markets in order to borrow in time of crises.

Concerning Bob Solomon's list, one could have gone even further and say that in addition to the actual consequences of the appreciation of the dollar there is also the implications of the inevitable subsequent fall of the dollar. In other words, if you really believe that the dollar went up in an unsustainable way then you also believe that it will have to fall and then obviously there is another section to be written of what are the consequences of the fall of the dollar.

Here I can already anticipate some of the discussions that will take place once the dollar falls. People will probably wonder why, in the short run, we do not see a great improvement in the current account. Let's remember that in the short-run the J-curve is still there, that many quantities have already been transacted for, and therefore once the dollar falls we may find a deterioration in the trade account for the short run.

Finally, there is the implication of what Anne Krueger brought up in our previous discussion. Namely, the implications arising from us turning from a creditor country to a debtor country. If you ascribe the current account deficit and the capital inflow to the strong dollar it follows that the cumulative capital inflow deteriorates our balance of indebtedness with all the implications of that.

UNEMPLOYMENT, INFLATION AND THE DOLLAR

Mr. BOSWORTH. I just wanted to make a minor point about Fred Bergsten's arguments about the effects on the unemployment rate. I think you might be able to argue that Bergsten has got the sign wrong.

I would have interpreted this policy, for example, as by having a rapid increase in the exchange rate the United States was able to achieve a dramatic reduction in inflation at a hell of a lot less unemployment cost than would normally have been the case in a closed economy. In that sense, we achieved an inflation target of the Federal Reserve, which was to get inflation back down to reasonable levels with a lot less domestic unemployment than would have otherwise have been the case, not more.

Therefore, the real problem in the future in that scenario is that when the dollar comes down the inflation rate begins to accelerate and the Federal Reserve's concern about accelerating inflation leads to a more restrictive domestic policy and a rise in unemployment.

In other words, we have only temporarily avoided the cost in terms of domestic unemployment of making an adjustment to a lower rate of inflation and the inevitable long-term factor that we have to beat it down.

But I think there are some problems with that argument, for the reason that Bob Solomon mentioned, but I would want to amplify because I don't think it's gotten enough attention. That is, it's common to say in the U.S., as several recent studies have argued, that about three percentage points of the six percent decline in the U.S. inflation rate is attributable to the rise in the value of the dollar.

If so, you would think that they would have increased inflation by a corresponding amount abroad. We normally have argued that other countries face a worse tradeoff between inflation and unemployment than the United States does, because they have more rigid domestic wages.

If that is true, how do you explain the surprising fact that foreign countries were able to have such remarkable declines in inflation despite all these external shocks pushing their prices higher.

Which makes me wonder whether in fact these things are quite as symmetrical as they are often treated to be, whether it's really the same if you have a dramatic rise in the exchange rate and its impact on inflation as if you have a gradual decline in the exchange rate over time, and maybe we shouldn't make the arguments that it's a pure symmetrical relationship and it sums to zero in the long run.

Mr. **WILLIAMSON**. I would like to comment directly on what Barry Bosworth said, not to defend Fred Bergsten, who if he were here would indeed defend himself on what I've always thought was one of the points where he does tend to exaggerate somewhat; but rather, on this assertion that inflation in Europe has not suffered. That's preposterous. Inflation has come down with rates of unemployment which are in double digits in practically every country. Suppose the U.S. had had double digit unemployment for five or six years. Where do you think inflation would be even if you hadn't had the help of the strong dollar?

Domestically generated inflation is now negative in the main European countries: the rates of wage increase minus productivity growth comes out negative, and the inflation that's left is entirely due to the appreciation of the dollar. So I think that it is a complete misinterpretation of history to say that there has been no cost of the dollar misalignment on the European side.

I am certainly not convinced that there aren't ratchet effects in the way that people used to claim in the 1970s. I think that the ease with which the profession accepted that there were no ratchet effects on overall prices, because Morris Goldstein (of the IMF) did some regressions which showed that there were no ratchet effects on prices given the level of wages, was one of the less becoming incidents in recent econometric history.

Surely, where we might expect to find ratchet effects is on the wage level, and there are no tests of that. Peter Kenen suggested there were, though the evidence was weak, but that's the only work I know of that was even directed to the relevant question. So I don't think that we should let the system of flexible exchange rates off on this inflation-unemployment question.

Mr. **FOX**. I think the unemployment effects tend to be downgraded by Bob Solomon's comments. In figures supplied by Dornbush, while total employment has grown by 8 percent nationally since 1979, in manufacturing it is now 6 percent below what it was in 1979. Now those are big changes and the improvement in the economy of the last two years was taken into account in those figures.

Now one can judge how much of that is transitional, how much of it represents cost that would have taken place anyway as new ways of putting autos together requiring fewer employees, etc. But I do think it's a mistake to minimize the unemployment effects, particularly in manufacturing, that can be attributed to the higher dollar.

Mr. **REIFMAN**. In short, you're talking about the composition of unemployment rather than the level of it?

Mr. **FOX**. Yes. If you deal in the aggregate, maybe it's not so bad, but if you take a look at the manufacturing sector you get quite dramatic figures even now.

Ms. **KURTZ**. Well, I have a comment and a question. The discussion here revolved around two issues—the impact of the dollar to date on American industries and American growth and what will happen when the dollar drops.

I work in the trenches and, to tell you the truth, these are not the top questions. The top question in the trenches is still that the dollar is still high and will continue to be high and could even increase more.

I want to know from the academics here whether they think that's a valid concern because, of course, the policy depends on what we do to bring the dollar down rather than what we do to assure a graceful fall.

Mr. **Frenkel.** Well, earlier we had a bit of a discussion on whether it is inevitably the case that the dollar will fall and it will crash. Some who subscribe directly or indirectly to the bubble theory have argued that the bubble will burst and when it bursts the dollar will crash. Others, myself included, said that while the crash is possible, there are still a lot of fundamentals that underlie the strength of the dollar today—fundamentals in terms of both current and prospective fiscal and monetary policy—and if we believe that the political equilibrium is such that those fundamentals do not change very fast, the implication is that at least as far as these fundamentals are concerned the dollar will not fall very fast.

There were arguments here that there might be some other exogenous things that none of us knows about, but this has little bearing on the direct policy discussion I think.

Ms. **Kurtz.** What time frame would you give to the point at which the dollar would start to turn around?

Mr. **Frenkel.** The same time frame that you would give to the relaxation of monetary policy and to the tightening of the fiscal stance.

Mr. **Murphy.** In fact, my thoughts were running in this direction before the conversation turned in other ways.

I'm a little surprised at Barry Bosworth's contention that we have escaped unemployment in this country because of the strong dollar and that unemployment might otherwise have been worse and in fact will worsen when the dollar depreciates. It seems to me that we are suffering unemployment, and especially the Europeans are, essentially because the world economy is still in a disinflationary mode. Now we are not so conscious of it in this country because the disinflationary mode is really focused in Europe rather than in America.

If the dollar depreciates, either suddenly or slowly, over the next twelve months or longer, we will have a different pattern of unemployment in this country. I'm not sure it will be greater, but the export and the import-competing industries will clearly improve, and the interest-sensitive industries will suffer. We will have a different pattern, although whether unemployment as a whole will increase or decrease is not clear.

In the meanwhile, it seems to me that the maintenance, in some degree, of a disinflationary stance is unavoidable because we still walk the tightrope of inflationary expectations. It took a decade for inflationary expectations to develop fully in this country. Only after an enormous lag did people realize that they had to live with inflation and did they begin to take actions to defend themselves against it. It's going to take another decade, I'm afraid, before those inflationary expectations disappear. We certainly have great numbers of people who believe that inflation is inevitable in five years or so.

In the matter of economic policy, I am prone to say that the Europeans do our dirty work for us. In this country we follow still a highly inflationary mode, and we've had a rapid economic recovery. The Europeans are following a contrary policy. But for them, with the kind of fiscal policy we pursue and the monetary policy that accompanies it, we would be experiencing a high degree of inflation. The Europeans, fortunately, do our dirty work for us. I have some gratitutde. I'm not sure why they do it, but I am grateful for it.

Mr. **Reifman**. And the Japanese.

Mr. **Murphy**. And the Japanese.

Mr. **Williamson**. And the developing countries, most of all.

Mr. **Reifman**. And the developing countries.

Ms. **Solomon**. May I ask in what way they are doing the dirty work for us? Are they keeping world material prices down by having stagnant economies? Is that how they are doing the dirty work for us? Or, if they had vibrant economies, would our exports grow faster? What do you mean when you say they are doing our dirty work for us?

Mr. **Murphy**. In a disinflationary sense.

Mr. **Williamson**. Through low raw material prices.

The Developing Countries

Ms. **Krueger**. I thought Bob's summary was interesting but it was interesting because he did not mention the impact on the developing countries and some of the effects there.

Let me just first mention to Barry Bosworth that I think most of the European countries adopted a tighter monetary stance than they would have adopted in the absence of high real interest rates here. Certainly that's true in the U.K. Certainly it's true of Germany. Certainly it's true of the Japanese.

To that extent, given that they have structural problems in their labor markets, they are paying for it with higher unemployment than they otherwise would have had, all else being equal, which it never is.

So I think you can argue that they have structural rigidities which would any way have caused problems and they are concerned with inflation, but in fact their price increases have been lower than they would have been because of their tighter monetary stance and therefore it has in a sense been symmetric mainly because we tightened they had to tighten. So I don't find any inconsistency there.

Let me go on to the developing countries. People thought the developing countries' debt which came to a head to some extent because of the combination of the worldwide recession, falling commodity prices, and the developed countries' real interest rates. What are the consequences of the strong dollar for the developing countries and their debt problem?

The first part of the answer is it's a very differential impact on different developing countries. But quite clearly, the fact that the dollar has been strong has had consequences for some other countries in terms of the oil price because that's denominated in dollars. It's made it, on the one hand, tougher for OPEC to hang together, but insofar as it has hung together it's made the real price of oil higher with the differential impact that has.

Then there are other commodity prices. There one has to argue that the strong dollar has surely had something to do with the failure of dollar commodity prices to increase. That has certainly increased the burden of debt for the developing countries. On the other hand, we have had the increasing exports from the developing countries.

One has to turn all of this around and go the next step of the way and ask, where does that leave them? The answer differs from country to country. If real interest rates were constant, some countries would be better off with dollar appreciation, others would be worse off. Similarly, there's bound to be a differential impact among developing countries when the dollar declines. Some of them are going to have really very nasty financial adjustment problems with dollar depreciation, again depending on the interest rate path.

Mr. BOSWORTH. I don't disagree with any of the comments that were made, but I think there is another perspective on U.S. policy. If the Fed did adopt a rigid target with respect to inflation, the rise of the value of the dollar has been a way to pass the burden of adjusting to lower inflation-unemployment on to other countries. It is the policy advocated by Mundell: a strict monetary policy, combined with an expansionary fiscal policy, is one way to get a lower rate of inflation and not pay the cost in terms of unemployment.

Ms. KRUEGER. All you're arguing is that there was a current account deficit.

Mr. BOSWORTH. Given the inflationary pressures that a rising dollar placed on their economies, I think Europe has done better in reducing inflation, despite the tremendously higher rates of unemployment than was anticipated. In any case, there's been an unemployment cost to the rest of the world of our policies.

There were studies a couple years ago—Jeff Sachs (Harvard) made one of them—arguing that Europe suffered from extremely rigid real wages. Well, one of the things that has been striking about Europe is that, as you pointed out, real wages have fallen dramatically. Labor's share of GDP has gone down sharply. I don't think that was a fully anticipated nature of the adjustment a couple years ago.

THE INTERNATIONAL MONETARY SYSTEM AND THE DISCIPLINE OF POLICYMAKING

Mr. SANTOS. I just have a comment about Bob Solomon's original subject which is the consequence of the strong dollar. I don't mean to diminish the importance of the educational process we are engaged in today. We have had hearings on this subject in the Finance Committee to educate ourselves and get our members to understand what is happening.

But I can't resist raising one of the clear consequences of the strength of the dollar and it's not an economic consequence. It's a political consequence—the erosion of faith in the trading system. I am not just referring to protectionism. The strong dollar has brought a fundamental reexamination of floating exchange rates and whether or not they are consistent with a free market for traded goods. These questions wouldn't have arisen were it not for the strength of the dollar.

So in discussing what makes sense from an economic point of view, it seems to me you have to take into account what non-economists, who, after all, compose most of the world, will think about what's going on and how they will react to it.

I was struck in preparing for our hearings in the Finance Committee by the history of the Bretton Woods system and the concerns of the "fathers" of Bretton Woods. I was struck by the fact that decisions were made at Bretton Woods based on fears of a repetition of the situation that prevailed during the period between wars. The framers of Bretton Woods did not believe that a free market for money was compatible with a free market for goods. They were unusually practical (for economists) in calculating the risks of disequilibrium in the international trading system. There may be lots of good economic reasons for striving toward equilibrium but the framers of Bretton Woods seemed motivated to create a system that achieved equilibrium because they recognized the political risks of disequilibrium.

So they attempted—perhaps unsuccessfully in the long term but in the short term it seemed to be sort of successful—to moderate the destabilizing forces, such as capital movements.

Now we are living in a different system today. We're living with an Administration that takes the position that there's no need for any moderating effects, that the dollar is not overvalued because its value reflects the meeting of supply and demand. Unlike the Bretton Woods era, there seems to be little consensus here or elsewhere about the causes and consequences of a strong dollar.

I hear a cacophony of intelligently argued views. It's certainly confusing for a non-economist. As people who presumably care about rationality and order in the world system, you must recognize that in the absence of a clear consensus on how to proceed you run the risk of precipitating illogical, unreasonable reaction, not based on particularly precise economic analysis.

That's a perspective of a layman. I think we've talked almost exclusively about the economic merits and demerits of a variety of points of view. We haven't really taken into account the fact that you are a very elite, exclusive group and are not talking about real world perceptions. The real world in the U.S. wants a dollar priced in such a way as to enhance the competitiveness of U.S. products. The real world thinks trade deficits are bad. The real world thinks trade deficits reflect under-employment and unemployment. You cannot escape from the fact that an international monetary system that permits or fosters large disequilibrium in the current account is doomed, no matter what its economic merits.

Mr. **Reifman**. All of us economists want to teach the lawyers, such as Leonard Santos, who make the laws that we live by, something about economics. More specifically, I expected Bob Solomon to tell us that we have the strong dollar because we needed the capital inflow to finance one-half of the budget deficit or 15 percent or so of our private investment. The dollar went up because we weren't willing to finance the budget deficit by more taxation or more expenditure cuts. That's what Bob Solomon would have said when he had gotten to it.

Mr. **Santos**. Well, actually, the conversation that preceded Bob Solomon's statement seemed to suggest that there are a number of factors causing an "overvalued" dollar, one of which, perhaps the principal of which, is the budget deficit. But we talked about speculative bubbles and all that sort of thing, and there are respectable economists and some former Treasury Secretaries who think that budget deficits are not a clear cause of the strong dollar.

Mr. **Black**. Well, I think we have already responded to this. I don't think there is a cacophony on this point about causes and I think there is a lot of unanimity among economists about the relative importance of the budgetary situation in the U.S. context.

There's another point, though, about the consequences that I'm not sure Bob made. He talked about the sick industries getting sicker and then he said, "And now maybe electronics." Well, I guess one point might be that some healthy industries have gotten sick, too, and I don't think that point has really been made sufficiently.

Mr. **Santos**. I agree. One of the consequences of the strong dollar is that some very competitive industries are having a hard time competing.

Mr. **Black**. It's gone further than that.

Mr. **Santos**. You have a new group of sectors asking for help. It's forest products, agriculture—you can name a whole series of people who didn't used to be in this game.

Mr. **Solomon**. I tried to suggest that the list I gave you is an early list from Rachel McCulloch, and I said that the list is presumably longer than that now. You think I didn't stress that enough. I fully agree that it's longer.

Ms. **Krueger**. Yes, but you can't just say agriculture is in trouble because of the exchange rate. Agricultural problems come more from the disinflation.

Mr. **Black**. That, too. They're compounded. One other point is to ask whether the institutional system or structure is in trouble, and I'm not so sure that we can say specifically that because of the high dollar that the institutional structure of the monetary system is in trouble. After all, it was only about six years ago—1977-78—that there was a lot of worry about the international monetary system because the dollar was so low and that led to some changes in Europe, the European Monetary System, which many people think was induced partly because of fears that the dollar was going to depreciate too much.

I think the point here is that what leads to stress is really fluctuations in the dollar rather than high versus low.

Mr. **Santos**. Certainly. I accept that.

Mr. **Williamson**. Not strong fluctuations per se, but misalignments, being a long way away from anything that makes any sense in the longer term.

Can I just add one other thought to this discussion, about who is sick because of the exchange rate? I thought that Larry Fox actually understated the case when he said that manufacturing employment has gone down 6 percent. He's lucky. I come from a country [the United Kingdom] where manufacturing employment has gone down 25 or 30 percent in that period and which had an equally overvalued exchange rate during some of that period (the pound also went above 40 percent overvaluation for a while), and that is not a coincidence.

I think the difference is that in this country there was a great expansion of government expenditure on the products of a part of manufacturing industry which spared a large part of the sector from bearing the full pain which it otherwise would have had from the overvalued dollar. Without that extra defense spending who knows what would have happened to your manufacturing industries.

Mr. **Santos**. Actually, the figure that Larry cited is non-military manufacturing. It would have gone up if you included the military. That's a non-military figure that he cited.

Mr. **Fox**. Dornbush doesn't state that. He makes a separate statement with respect to the military. I can't confirm what you're saying.

Mr. **Black**. I think it's overall.

Mr. **Fox**. It is overall as he states it. He does give the figure on military which of course very much bears out what John is saying, that absent the military program, the situation in manufacturing in terms of output and employment would be considerably more serious.

Mr. **Solomon**. But let's generalize fully. In the spirit of the discussion that we are trying to have and in the spirit of what Jacob Frenkel tried to start us off with, let's recognize that if defense spending had risen less, the budget deficit would have been smaller and the interest rates would have been lower and the dollar would have been lower. Let's not just say that non-defense employment is lower somewhere. Let's look at the whole picture.

Mr. **Williamson**. That's one reasonable basis on which to make comparisons, but there are others. When I talk about the consequences of a strong dollar, I do it in a partial equilibrium sense. I implicitly suppose that there is a perfectly operating interest equalization tax which would have enabled the dollar to be controlled at some alternative level, and ask what are the consequences of the differences between the two positions. In a second stage of the exercise I make a second comparison and ask what would be necessary in fact, given that we don't have this perfect interest equalization tax, in order to get the dollar to a different level.

I admit that I was making just the first comparison. I think there is a case for asking that question, as long as one does not draw conclusions without going on to the second stage.

Mr. **Frenkel**. As Mr. Santos indicated and properly so, the discussion at Bretton Woods and the discussion today in a way are very similar. One lesson to learn from these two systems is that no exchange rate system can protect you from wrong policies. That's really the bottom line. It is not the system that protects you from the wrong policies. You have to start from the policies and then you may ask what system can be sustained by the set of policies which you adopt. That's the reason why we should not just focus on the strong dollar or the weak dollar or the fluctuating dollar, but we always have to come back to the policies that cause it.

Mr. SANTOS. Could I just ask a question? It's sort of a rhetorical question.

One of the witnesses at our hearing made a point that struck me. I'd be interested in your comment. He said that one of the advantages of the Bretton Woods system was that it tended to force a certain amount of fiscal discipline on the countries participating, because the drain on their monetary reserves would precipitate domestic fiscal discipline. We are missing that discipline now.

My question is: Could one argue that the approach to floating exchange rates that we have now has not offered any substitute for the disciplines that uses to be imposed on us?

Mr. FRENKEL. Let me make two points on this.

First, experience seems to suggest, that national government are unlikely to adjust the conduct of domestic policies so as to disciplined by the exchange rate regime. Rather, it is more reasonable to assume that the exchange rate regime is more likely to adjust to whatever discipline national governments choose to have. It may be noted in passing that this is indeed one of the more potent arguments against the restoration of the gold standard. If governments were willing to follow policies consistent with the maintenance of a gold standard, then the gold standard itself would not be necessary; if however, governments are not willing to follow such policies, then the introduction of the gold standard *per se* will not restore stability since, before long, the standard will have to be adandoned.

Second, even if one took the discipline argument seriously one could argue that flexible exchange rates can also influence policy making. In fact, since policies reflect themselves very promptly in the foreign exchange markets and since exchange rates are much more publicized than data on the stock of international reserves, it is possible that policy makers, knowing the consequences of their actions will be highly visible in the foreign exchange value of the dollar, will be more rather than less prudent under a flexible exchange rate regime.

Mr. SANTOS. Could I argue that the gold standard put the pressure on the treasuries of the world, whereas the floating exchange rates puts pressure on the political institutions which then have to react to put pressure on the treasuries of the world.

Mr. REIFMAN. We've got three IMF experts here. Anne Krueger.

Ms. KRUEGER. I was going to say much what Jacob [Frenkel] did, namely the reason Bretton Woods broke down was because government did not have enough discipline. Had monetary and fiscal policies been subordinated to the needs of the fixed exchange rate regime, the system could have continued. This is not to argue that they should have been so subordinated—only that fixed exchange rates were no longer feasible.

But to your more general question and the kinds of pressures that have build up: whenever people don't like an economic outcome, there is a tendency to go to the political process and seek to legislate change, without regard to its feasibility. What is frightening right now is that one of the political steps being proposed might well have the opposite effect of those intended. There is insufficient political understanding of the fact that the short-term band-aid approach really won't address the fundamental problems and may indeed also have political consequences which in the long run are unpredictable and maybe much stronger even than these.

Mr. **Santos**. That's my point. My point is, because of the danger of reactions that are inappropriate to the facts, wouldn't it be sensible to have a system that did not force the extremes or permit the extremes?

Ms. **Krueger**. What you're thinking about, if I understand it, is a system where you intervene to keep the exchange rates within limits. That would involve governments in guessing and sometimes they guess wrong. In fact, their track record is not too good on that, witness the British in the 1960s as they were trying to keep the pound afloat. The consequences of that may be far worse in the long run than the political consequences of what we're doing.

Mr. **Santos**. Given the fact that it's unlikely that political institutions will properly interpret economic realities, history being the best evidence of that, wouldn't it be sensible to design an international economic system in such a way that the political institutions were not confronted by great disequilibria?

Ms. **Krueger**. I think there's some people who think the balanced budget amendment is designed to do exactly that.

Mr. **Williamson**. I sympathize very much with the question raised as to whether the previous system didn't contain some disciplines which were valuable. Indeed, as the Chairman knows, I wrote a paper about that subject a while ago, and——

I think to say that the Bretton Woods system broke down because the disciplines were ignored is to ignore the fact that it was too rigid a system. There were some basic shortcomings in the design of the system. There wasn't any method of changing the exchange rates in order to cure misalignments in the event of inflation. Attempts were made to reform the system but the official world wasn't interested. So at the end of the day we threw overboard the whole system, including what was good about it, the elements of discipline, as well as the weaknesses. And in my view, we ended up with something which is worse, in large measure because those disciplines aren't there.

Let me just remark to Anne that I agree that it was very foolish in the 1960s to have defended an exchange rate that became an overvalued rate. But that was a weakness of the system as it then was, since the system precluded open discussion as to what was the right exchange rate, for fear that such discussion would bring down the whole pack of cards in the process. I think we have learned something about how one could design a more robust system which does contain some disciplines. Indeed, I would suggest that the Europeans have gone quite a long way in that direction in creating the European monetary system as a response to the excessive weakness of the dollar in the late 1970s. To my regret, they didn't take that to its logical conclusion and legislate crawling in the system, but it's operated in something of that spirit most of the time and I think it has been largely successful. Certainly it's avoided the vast misalignments which have characterized the exchange rates of all the major economies which have not participated in that system, and I think the United States could indeed learn something from that experience if it were more open-minded about learning from the experiences of other countries.

Mr. **Black**. My comment is about the discipline question and whether or not we still have discipline. I agree with Jacob that just because we have adopted floating rates we don't abandon the external constraints. It's just changed form. It still has its function.

But when I looked at the behavior of government policies over the floating rate period, I found that there seems to be a shift towards more focus on the internal objectives by comparison with the pegged rate period. That is to say, inflation and unemployment seem to be more influential in causing monetary policy to move one way or the other than they were earlier.

The external objectives such as the current account, capital account, and reserves seem to be a little less important. So that the tendency was what one would have predicted, which was some reduction in that discipline coming from from the external side.

What we have seen instead is a shift of many governments to a more general anti-inflation stance. There's been great disillusionment with the attempt to maintain full employment; now the emphasis is to reduce inflation and that's not a result of the discipline of floating rates. Add to that the fact that the present Administration in the U.S. really doesn't have any interest in the level of the exchange rate particularly; it just doesn't have any policy interest in it, apparently. That means that you really don't have the discipline effect even in an attenuated form working very much in the center country. So that's what I would say about the discipline argument. I think there's something still there but it's attenuated.

Mr. **Murphy**. On the discipline argument, I would think that it's been swept away by the experience of the last two and a half decades. If there were discipline in the regime of the fixed exchange rates, why did we have the greatest inflation of the century originate in a period of fixed rates? The inflation that began in the mid-1960's swept away Bretton Woods and dominated the whole of the 1970's. Ironically, in the early 1980's we had a remarkably uniform worldwide set of disinflationary policies imposed during a regime of flexible exchange rates, under which there was allegedly no discipline.

I would go back to my earlier position that most governments in the world are in a very "disciplined" stance at this point in time. We are in a disinflationary stance. It's just that in this country we are not observing it very much because we are not participating in it very much. We continue to follow a rather inflationary policy and have imposed, as Barry Bosworth pointed out, excessively disinflationary policies upon others. The Europeans, the Japanese, and the Latin American, African, and Asian debtors have borne the burden.

One final word on Leonard Santos' plea for a theme from the economists on which some kind of consensus can be built. I say that you get such a theme from Jacob Frenkel, and the essence of it is that the exchange rate is not the point. I must admit that the terms "overvalued" and "undervalued" exchange rates really have little meaning for me. I think the exchange rate is what it has to be in order to clear the market. It does its job. And it is symptomatic of all the forces that come to play upon it through government policies and the endogenous and exogenous forces that are acting on world markets.

What we can do something about is in the policies we pursue, and the policies we pursue are not very wise ones in the sense that we have very large fiscal deficits, and we follow an unbalanced mix of policies.

Mr. MAKINEN. I have a comment about the fall of employment in the manufacturing industries. I think maybe we are attributing too much of this fall to the exchange rate variations and not realizing that over the last ten years there's been quite major shifts in factor prices. We have had two major petroleum price increases and it must change the factor mix and it must change how business decides to conduct itself here. You may have this influencing the capital-labor intensity. So we have had these factor price changes which can account for some of the unemployment perhaps, and there's also been exogenous technology change—the robotics revolution in automobile construction, for example. We produce the same number of cars with fewer people. Do we attribute that to the foreign exchange rate or is it attributable to something else?

The point is I think we tend to attribute too much of the relative declines in unemployment in certain sectors to the exchange rate when in fact something else has been occurring at about the same time that the dollar has been appreciating.

Mr. MCDERMOTT. I agree with what's been said and I just wonder if in the conversations today and those that have taken place in the last few years we risk talking past each other. The political participants in this room are similarly asking whether a system be designed with some discipline, and the economists saying, if you have the discipline to do what you're supposed to do, balance the budget or have appropriate monetary policy, don't worry about designing a system. It's something in and of itself.

Mr. TRUMAN. I would like to comment first about this question of the consequences of an overvalued dollar and the implications for change in the system. It is a little glib for economists to say, don't look at the system as a cause of the problems; look to your fundamental policies.

The problem is basically whether the political-economic dynamcis are going to drive us to a system which all economists will agree is second best. That is a very serious challenge and we are in some danger as economists of ignoring that question.

We have a real challenge to say whether the system that we have, which most economists favor, will be driven to forced coordination of policies as we had under a par value system, or whether it will end up driving us to a set of solutions which are highly undesirable. Obviously, there is considerable risk of the latter.

So I think economists are right to continue to say, don't look for the answer in changes in the system or in treating the symptoms as the causes. Nevertheless, I think the responsibility of the economists goes beyond that to try to figure out ways in which the system can be modified so that it can generate correct signals to make policy modifications.

I would like to make some comments about the discussion of the crash of the dollar.

One is that I think John Williamson, will all due respect, you were overstating your case when you said a 3 to 4 percent real devaluation per year will not do the job. Three or four percent real devaluation per year will not correct our deficit right away, but I think three or four percent devaluation if carried on long enough will in fact do it. According to all standard models, the process can go on that long.

You can argue whether that would be a sustainable path—three to four percent or five to eight percent or eight to ten percent per year, as was suggested in the earlier comments. That's a different issue than the analytical point about whether three or four percent will do it.

I interpreted Anne Krueger's remarks about the crash as tending to favor that result or at least putting more credence in that result. The notion that you have one precipitating event which then turns everything around runs somewhat counter to the proposition that we have had a series of positive factors or, as Jacob Frenkel put it in his earlier discussion, we have had many factors explain the dollar's rise and not just one factor. When you put that in context, it seemed to me that the issue is whether many negative factors can run the whole system in reverse.

Now I would submit that as a proposition in probability theory it may be highly unlikely that you would have a long string of heads, but I think it's even more unlikely, if I'm not mistaken, to have a long string of heads followed by a long string of tails.

Mr. FRENKEL. Unless you use the same unbalanced coin.

Mr. TRUMAN. But the unbalanced coin is I think the single explanation, if I might put it that way. It seems to me there is considerable evidence to support the proposition that a large crash, which would have to mean something more rapid on the downside than we've had in the four or five years on the upside, is unlikely. Even a symmetrical series, which would require the string of tails, in some sense would be relatively easy to control, just as Mr. Cox was saying about why should the decline be harder than the rise. I think that's a sensible way of thinking about the problem.

One cannot prove analytically that you will not have a crash—the probability of the string of tails after the string of heads is not zero, so that you cannot absolutely prove that the crash will not come. But it seems to me that one needs to step back from proofs which go along the line of throwing adjectives in the air, like "ridiculous" and "preposterous" and things like that, which tend to be essentially the view of the Bergsten-Williamson-Marris line on these kinds of things.

Now I'd make one comment on one small point on policy because in the earlier discussion of bubbles I think Jacob Frenkel made the comment that the bubbles have no implications for policy. Without sounding like a big fan of intervention, it would seem to me that the existence of speculative bubbles might support the possible usefulness of intervention as a policy tool, if you want to prick the bubble before it becomes too large.

Mr. FRENKEL. What I meant to say was that it does not have direct implications for policies concerning fundamentals.

Mr. Williamson. One of the advantages of using rather more flowery language than is customary in the profession is that it then gains you the right to reply to comments like that.

When Ted Truman says that all reasonable models suggest three or four percent is enough to do it, I presume he is relying on Peter Isard's simulation.

The calculation which Peter Isard made which led him to this conclusion seemed to me to have one rather basic flaw, which was the assumption that you do not have to generate the real component of the interest on the foreign debt, that foreigners, however much debt they had——

Mr. Truman. The result comes out of the portfolio balance theory. You continue to allocate your savings as Mr. Murphy said earlier in accordance with the traditional allocation. It's absolutely straightforward.

Mr. Williamson. That's not true of the real interest rate, just of the inflation component. I deducted the inflation component in the calculation I did.

Mr. Truman. If real interest rates are the same around the world, then you allocate your new wealth the same way you allocate your old wealth.

Mr. Williamson. There is nothing that says that real wealth has to grow at the real rate of interest. There are rates of interest higher than the rate of growth. You are assuming that the rate of interest is always no higher than the rate of growth, but in that case you can't even define present values. So, that's why I don't accept Peter Isard's calculation as definitive, because essentially instead of taking his $15 billion a year deterioration that has to be compensated for by depreciation, he takes $10 billion. Three or four percent does give you a little bit of slack for that though it takes a long time. But eventually you get there.

POLICY OPTIONS TO DEAL WITH THE STRONG DOLLAR—BY JOHN WILLIAMSON, INSTITUTE FOR INTERNATIONAL ECONOMICS

Mr. Williamson. I think it emerged and very clearly from this morning's discussion that there are two dangers with the high dollar. The first is that the dollar stays up somewhere close to where it is; and the other is that the dollar falls, in something which was called a collapse as opposed to an orderly decline.

The question was raised, very rightly, by Bill Cox, as to what one means by a "collapse." What should one mean? Surely, it is not true that what we are afraid of is a precipitate adjustment per se. In many ways, one would think that the ideal situation would be one in which we woke up one morning and found everyone agreed that the dollar was not at an appropriate level; action was quickly taken to change the level; and the dollar came down drastically and very quickly, but without any loss of confidence, and without undermining the credibility of economic policy.

What one is afraid of, I think, is not therefore a precipitate adjustment in itself, but either a new overshooting, the dollar falling even further than its medium-term norm; or else a continuing decline, which may not be particularly fast, but which creates an increasing lack of confidence across the whole range of economic policy.

This is the sort of scenario of collapse that Stephen Marris has in mind. He has gone back and looked at history and observed that no major currency has ever declined on a sustained basis by more than some 20–25 percent per year. Therefore, he argues that is the most one need expect; but it would be more than the market is currently expecting. As the decline got underway, the markets would come to anticipate it, and this would create a progressive lack of confidence in economic policy. The feeling would grow that policy was out of control, and one would end up with the same sort of stabilization crisis that one has seen in other countries at other times.

So it is not the suddeness of the decline in itself which is viewed as being dangerous, but rather the probability that a continuing decline in which people are continuously losing money would undermine confidence in economic policy.

What one has seen in other countries under similar circumstances is, first, a rather timid step toward raising interest rates through monetary restraint. That has proved to be insufficient and therefore backfired, being interpreted as a panic measure which further erodes confidence, until eventually it comes to such a crunch that there has to be general stabilization program involving fiscal adjustments. That would set the stage for a U.S. recession.

So that is the danger as I see it. I very much agree with what Bill Cox said. It is not itself the rapidity of the adjustment, but either overshooting or else a continuing slide which erodes confidence.

The ideal situation would, indeed, be a rapid adjustment, which was accepted as being once and for all. For example, it would be recognized that a depreciation had to be absorbed in lower real wages, thereby avoiding igniting an inflationary spiral—a real danger under the slide scenario.

The aim, therefore, should be to get the dollar down from its present level without either overshooting or any erosion of confidence. What would one do if one agreed that that was the appropriate objective?

TARGET ZONES FOR EXCHANGE RATES

The first thing should be to *think* about the desirable exchange rate. If one believes that markets base their levels on expectations of future rates, which, in turn, are very heavily influenced by the attitude that they think the authorities are going to take, then there is no rational alternative to the authorities thinking consciously about appropriate medium-term norms for exchange rates. This is not something they can just shrug off as the responsibility of the markets.

The second step, to my mind, would be to negotiate that rate in some appropriate international forum, because it is no good for the United States to have an exchange rate target if that is incompatible with the implicit or explicit targets of other countries. The United States is probably the only country in the world for which that need for agreement is true. But if this country were to develop an exchange rate target which was incompatible with those being pursued by others, we might easily end up in a worse mess than we are at the moment. Hence, the second thing would be to make sure that there was some measure of international agreement about what the appropriate targets were.

The third step would be to announce those targets. That is a key part of the notion of target zones. These would be broad zones as opposed to narrow bands. Nobody is suggesting we go back to the Bretton Woods system with rates prevented from moving outside of narrow bands.

But one still encounters the notion that it is very dangerous for the authorities to announce what they think are right exchange rates. This is a longstanding battle I have with the British Treasury, which says: "You must never tell the markets what your targets are because they may shoot at them." If policies are mutually consistent, on the contrary, targets act as a stabilizing influence and help to focus expectations. So, to my mind, it would be sensible to announce what sort of targets one had agreed would be appropriate.

Everyone agrees that simply having targets is not going to do very much good unless one does something to encourage rates to go towards them. So the next question: what would one do?

I think the answer that we have from economic theory is very clear: the principal instrument for achieving an exchange rate target, or pushing in the direction of an exchange rate target, has to be monetary policy. If there is not an element of monetary policy directed toward external needs, then one isn't serious.

The element of monetary policy can usefully be reinforced by intervention. Most of us have doubts as to whether massive intervention by itself could be relied upon as an effective policy instrument. But, as a way of giving added force to a monetary policy which was being partly guided by external objectives, it seems difficult to see any losses, and the possibility of considerable additional leverage stemming from intervention.

The other big question raised by the use of monetary policy is, of course, the fear that if it were to be used for exchange rate management alone, this could lead to major problems of domestic economic management. Specifically, if one considers the present U.S. situation, then an announcement that the Fed was going to orient monetary policy towards securing an appropriate depreciation of the dollar, if undertaken by itself, could carry some dangerous implications—there could be a reignition of inflationary expectations.

Hence, if one is to use monetary policy for external objectives, the essential corollary is that fiscal policy should be used much more than it has been in recent years for domestic stabilization.

We really have to get away from this childish business of regarding countercyclical fiscal policies as Keynesian, old-fashioned, and bad. Fiscal policy has to be used for purposes of domestic economic management. Specifically, in the United States at the moment, we have to have major, credible cuts in the budget deficit; while other countries—Germany, Japan, to some extent the UK—need to have some fiscal expansion.

A final question that I should turn to is whether there might be a place for capital controls in a package of measures designed to push the exchange rates towards an appropriate medium-term level. We all doubtless agree that capital controls leak. There is no question about that, and for that reason, they are not the first best choice; if one can get along without them, that would be preferable.

But I would want to argue that it is a mistake to rule out capital controls. It may be necessary, if one is serious about exchange rate targeting, to have some role for capital controls. That takes you to the next question: what is the best form of capital controls?

TOBIN'S TRANSACTIONS TAX

Let me just mention two possibilities. One is Tobin's transactions tax: a tax on any foreign exchange transaction. I think that is misguided.

The two major problems with the floating exchange rate system (in addition to the lack of pressure to coordinate policies about which we talked this morning) are volatility and misalignments of exchange rates. By volatility I mean short-term, day-to-day movements. Misalignments are prolonged departures from exchange rate levels sustainable in the medium term.

Of those two problems, I regard by far the most important one as misalignments. And I can't see that the Tobin tax has any relevance to that problem. It is a tax that would not make any systematic effort to push rates back towards appropriate medium term levels. It doesn't require any notion of what is a medium term norm for the exchange rate, and it wouldn't have any systematic effect in reducing (or increasing) misalignments as far as I can see. So it's irrelevant with regard to the major problem.

Meanwhile, it would worsen the minor problem of volatility, for there are many transactions, current account imbalances or long-term capital flows, which create a need, if the market is to function smoothly, for a series of subsequent transactions as traders balance their positions. Each of those transactions, which enable the markets to function smoothly, would have to pay a 1 percent tax. One would discourage most of them in that way. The whole market system would operate more jerkily. So I think you would increase volatility rather than decrease it.

Therefore, Tobin's transactions tax dosen't seem to be an appropriate remedy to the problem.

INTEREST EQUALIZATION TAX

The other type of capital control that has been suggested widely in recent years is an interest equalization tax. I don't think anybody wants to go back to trying to control capital movements through quantitative restrictions and the banning of certain transactions. Virtually everyone, or at least all economists, accept that if you are going to try to control capital movements, it should be through some price mechanism: dual exchange rates, an interest equalization tax or Tobin's transactions tax. Those seem to be the things people talk about nowadays.

A dual exchange rate for the dollar is an idea I have never even tried to think through. When I am in the Dominican Republic, I'm happy enough to agree that a dual exchange rate might not be a bad idea. But when it comes to the world's transactions currency, the mind boggles.

Hence the interest equalization tax seems to be the most promising if one is going to think about capital controls at all. This is a proposal that makes sense only if one has some view of target exchange rates, since it's a tax which would be imposed one way when the currency is too high, and the other way when the currency is too low.

As we were reminded this morning, both things can occur within a short space of years. And both of them, I would like to add, can create very genuine problems both for the country involved and—especially when one is talking about a center country—for the rest of the world.

I find the interest equalization tax an attractive proposal, except for its leakiness. I cannot believe that it would not be widely evaded. And I don't like imposing taxes which I know are going to invite widespread evasion. So, for that reason, I regard it as very much a second best. But if one found that exchange rates had got stuck and that the levels appeared to be storing up major trouble for the future, which, as you may have gathered this morning, is my diagnosis of the present situation, then it's something which I would be prepared to use as a part of a package.

MONETARY POLICY DIRECTED AT EXCHANGE RATE TARGET

It is perhaps worth noting that, in Europe, there has been a managed exchange rate system in recent years—in fact, rather tighter than anything being talked about at the world level. Of the members of the European Monetary System, three have fairly significant exchange controls. But there are two of the minor members, most conspicuously the Netherlands, as well as Germany, which get by without exchange controls. And they do it essentially by directing monetary policy at external purposes.

Even though European economic policy has not been in all respects a conspicuous success in recent years, it is not clear that the failures are due to the exchange rate element, as opposed to the fact that real wages have got stuck at too high a level.

So, from the European experience, I would say that there is reason to think that one is able to control exchange rates if one wants to. I very much agree with what Jacob Frenkel said this morning: that even though we can't predict what will happen to exchange rates, it is not legitimate from that to infer that we are powerless to control them; we do indeed know what effect most policies can be expected to have on exchange rates. That is enough to enable one to design a policy whose predictability lies not in the rate of expansion of monetary aggregates but rather in the response which is evoked to the behavior of exchange rates.

If one is serious about reducing misalignments, then clearly what is needed is a policy which is specifically directed to the exchange rate, as opposed to a policy of simply creating stable conditions, after which the stable exchange rates will supposedly eventuate—which, of course, is true only, even in theory, if all shocks come from the public sector as opposed to the private sector. After the events, for example, in the Ohio savings and loans a few weeks ago, this is far from a self-evident truth.

Mr. **Solomon**. First, let's congratulate John Williamson for doing what not all proponents of targets do, worrying a little bit about domestic stabilization, when he suggest that monetary policy should be directed at the exchange rate.

I congratulate you, John.

[Laughter.]

Mr. **Solomon**. However——

[Laughter.]

Mr. **Reifman**. We knew there was something wrong.

Mr. **Solomon**. The fly in the ointment is the need for a flexible fiscal policy, if monetary policy is to be directed at the exchange rate. It's an ideal I think we should all fervently hope for and try to produce and implement, whatever the verb is. It's desirable for domestic reasons, even if one weren't aiming, as John is, at doing something about exchange rates. But my God, it's far away. I think you've got to go further. People who share John's view about what should be done on the exchange side have to do more than simply say we need a more flexible fiscal policy. How do you get it, and what specifically do you do to make fiscal policy more flexibile.

You propose that the President be given authority to change tax rates. It's an old, old proposal.

Mr. **Bosworth**. I don't agree with that at all. [Laughter.]

Mr. **Reifman**. You're speaking for an earlier administration. [Laughter.]

Mr. **Solomon**. Or what else do you do to make fiscal policy more flexible? One has to pursue that and come up with an answer, before one can join the proponents of target zones in agreeing that monetary policy should be partly or wholly directed to stabilizing the exchange rate.

Mr. **Reifman**. At the same time, we can't coordinate the 535 Members of Congress and 1600 Pennsylvania Avenue.

Mr. **Williamson**. Can I just remark that right now I don't see the problem of a flexible fiscal policy residing primarily in this part of town?

Mr. **Reifman**. It resides both places, but I was thinking of the problem with Europe and Japan. I noticed in yesterday's paper that the IMF is very happy with the fiscal policies of Germany and Japan. The IMF doesn't recommend that they take more expansionary policies to pick up whatever slack the U.S. might generate. Indeed, regardless of what the IMF says, the Germans and the Japanese themselves don't show any inclination to take more expansionary domestic measures at a time when most of us in this room probably think that this is a desirable idea.

Mr. **Murphy**. John Williamson and I have discussed these matters before. John argues the right policies for the wrong reasons. He wants to have a more inflationary monetary policy and a less inflationary fiscal policy, in order to get the exchange rate down.

I don't think it makes a bit of difference whether we get the exchange rate down or not. I do think we need a less inflationary fiscal policy and a more relaxed monetary policy; then the exchange rate will take care of itself.

Mr. **Reifman**. What's your reason for asking for such a mix?

Mr. **Murphy**. It is primarily because I think the United States should not be a capital importer at this point. We have an undesirable imbalance in our national savings and investment relationships. I'd like to see this country become a less consumption-oriented society. That's in part a value judgment. But the fact that we have allowed our spending vs. our saving and taxing actions to go so askew so rapidly has imposed severe strains on the system, in terms of the unemployment in manufacturing that Larry Fox is talking about and in terms of the difficulties facing our farmers. By allowing the fiscal deficits, the capital inflow, and the value of the currency all to rise as rapidly as they have, we've imposed unusual and unnecessary strains on certain segments of the economy.

Mr. **Reifman**. And on the rest of the world. Do you care about the exchange rate?

Mr. **Murphy**. I do care about the exchange rate, but it's not my target. It's a price—a very important one, but a price that, like all prices, has its own manifold jobs to do.

Mr. **Black**. It sounds to me like you all have almost all the same reasons as John Williamson, just different ways of arguing them.

Actually, I had a couple of minor points with respect to John's comments. He says he's not sure why Europeans don't believe in announced targets for exchange rates. I have a hypothesis to suggest, and I'm wondering what your reaction to it would be.

It's my impression that over many, many years the Bank of England was responsible for selling gilts to the market, and its method of doing so was frequently to generate a large jump in the interest rate and then to gradually have it come down over some subsequent period, which would, of course, generate a nice rising market in gilts, which would make it easier to sell them.

Actually, I saw a wonderful chart in *The Economist* that shows how this was done. Obviously, if they announce this kind of thing in advance it wouldn't work too well. The Bank of England not only had this kind of experience, but also some related experience in the intervention game in the 1970s, when they were trying to defend the pound in the face of what ultimately turned out to be a rather inflationary monetary and fiscal stance.

Maybe they feel that announcing their plans is not always a good idea, because their plans wouldn't appear to be consistent. And that's one point of the question.

The second was really just a point of agreement that I concur with John's criticism of the Tobin proposal. It seems to me that it would tend to worsen volatility essentially by reducing the elasticity of demand, making it more difficult to have enough stabilizing speculation. So it troubles me as well.

Mr. **Reifman**. Stan, take a minute and describe the Tobin proposal.

Mr. **Black**. It's basically a tax on all exchange market transactions, whether on current account or capital account. Tobin wants to affect only the capital accounts, but there's no way to make the distinction. So he says all transactions. I think it's 1 percent or something like that.

Mr. **Cox**. Tobin has made his proposal two or three times, beginning, I think, 10 years or more ago. And it's never received much attention, except among specialists, as far as I know. He proposed a 1 percent tax on every spot market exchange among currencies, worldwide, of course, which would have the following characteristics. It would be a 1 percent tax on trade on currency exchanges for purposes of merchandise imports, because that's a one-way transaction. It would be a 2 percent tax on capital transactions, if you assume that funds would be invested abroad and then repatriated. And it would be a 2 percent tax equally, whether it's an overnight transaction or a long-term transaction, whether years go by before repatriation.

Suppose there's a 2 percent interest rate or yield differential between New York and Frankfurt, and if there is a 1 percent tax you have to be willing to commit your funds and expect to make that 2 percent differential for a full year before you cover the round trip tax. It wouldn't pay to invest for three months, six months or anything less than a full year. And you would have to take the exchange risks in the meantime. In order to make it worthwhile to pay the tax for a three-month investment, you'd have to have, I think, an 8 percent yield differential, which is unprecedented. So it would weigh very heavily on short-term and even medium-term commitments. It presumably would weight much less heavily on long-term commitments.

It seems to me that you're quite right, that it would increase volatility by reducing the elasticity of the supply of funds in a given market.

But you've contended, John, that it's not the volatility that's the problem, but the long-term misalignments of exchange rates. Tobin's thought, as I understand it, was that it's the increasing prevalence of capital transactions in exchange markets that has resulted in exchange rates deviating so very far from some kind of purchasing power parity or from some kind of level that would give you a sustainable trade balance.

Tobin's objective is to reduce the share of capital market transactions relative to trade transactions in the exchange market. His thinking is that by doing so, trade would play a larger role, and therefore, exchange rates would stay somehow closer to trade-related levels. Of course, one great fly in the ointment is that in order to make this scheme at all feasible, it would have to be applied on a universal basis. That is, the IMF would have to agree that everyone would tax all transactions, whatever currencies were involved, and even conceivably the North Koreans or the Cubans or somebody could set up a thriving exchange market business. So it would have to be quite inclusive to be practical.

It seems to me that if it could be imposed that way, it might reduce the deviations of exchange rates from what John is referring to as the fundamental equilibrium.

Mr. Solomon. It sounds like quite a revenue raiser, by the way. [Laughter.]

Mr. Reifman. We would have a flexible fiscal policy.

Mr. Cox. Probably $100 million a year, maybe, for all of us here.

Mr. Black. Just on this question of whether it would, in fact, reduce the importance of capital account transactions. It would certainly make them more costly. But if we have still an underlying situation in which the U.S. needs to import capital, I think we'd still have to do it, if that's the imbalance between our savings and investments. So the result would be to cost us more to do that.

Mr. Cox. That's right, but consider what it would do to little blips like the one we saw earlier this year. It would make following a bandwagon totally impractical.

Mr. **Black**. So if your view is that most of the problem is in the bubbles and bandwagons, then maybe this is a sensible proposal. But if your view is that that's the blip on top of the underlying trend, then it probably wouldn't be.

Mr. **Frenkel**. I would like to make a couple of points, one concerning the so-called "sand in the wheels" proposal, which is the tax on capital flows. I do agree, of course, with John that it's going to be a very leaky one. In addition there is also a deeper point which should cause us to be concerned. What we're going to introduce is increased volatility of policy. Namely, in order to stabilize the exchange rate we will need to introduce frequent changes of policy. Even if the volatile policy succeeds in stabilizing the exchange rate, it may introduce instability into other segments of the economy. If we are, indeed, going to have volatility of policy, in the sense of capital import tax, when the exchange rate is one way, a capital export tax, when it is the other way, and the tax is variable, depending on the circumstances, then we basically introduce a dual exchange rate regime. The danger with such gimmicks is that in general, as we know, introducing policies is much easier than eliminating them.

INTERVENTION

Mr. **Frenkel**. I want to say something about intervention. First, the essential prerequisite for a successful intervention is that since it takes "two to tango," there must be agreement about what is the level of the exchange rate that we want to support.

I don't think such an agreement exists now.

Second, there should also be a commitment to forego other uses of monetary policy that may be desired for domestic stabilization and attractive to the politicians.

It's probably unrealistic, and therefore, dangerous to design a system that gives monetary policy the single role of dealing with the exchange rate at the expense of some domestic targets. Such a system is bound to collapse in times of difficulty. If, indeed, we wish to achieve a given real exchange rate, a given composition of industrial output, a given composition of employment, et cetera, there is a package of fiscal and monetary policy that will generate it, then why not use all appropriate policies?

If they generate the wrong real exchange rate, then if you cannot change the fiscal-monetary mix to generate the outcomes you desire, why do you expect to be more successful by directing monetary policy to the nominal exchange rate?

Will that generate the outcomes that you want? I think that both fiscal and monetary policy must be used to achieve our major economic targets, rather than designing monetary policy alone to achieve external balance. There is a fundamental difference between the United States and other, smaller open economies in the effectiveness of fiscal and monetary policy. Monetary policy can be more effective in achieving external balance for a small economy than for a large one, like the United States. In the United States the mix of fiscal and monetary policy should aim at price stability and full employment.

Mr. WILLIAMSON. It seems to me that there are two reasons for thinking of exchange rates as being appropriate intermediate targets. One is that they are one degree closer to the things one is interested in influencing than fiscal and monetary policy per se. There's an extra set of slippages between fiscal and monetary policy and the composition of demand as between U.S. and foreign industries. It is the real exchange rate which determines that division, therefore, it is closer to what one is interested in. So in that sense, it seems to me to be more efficient to focus on the exchange rate rather than just on fiscal and monetary policy.

The other reason takes me back to something that was said already: It is a natural focus for discussions between countries. It is the direct interface between different countries and for that reason it might be a particularly natural candidate for agreement on targets.

Jacob Frenkel asked the question as to whether one would even be able to agree on these targets. Since nobody has tried, the answer is not self-evident. I tend to think that there is a real community of interest in having exchange rates at sustainable long-run levels.

What's more, I am optimistic that in an imperfect way one could get agreement through the sort of haggling processes which are involved in international negotiations, because I don't see a conflict of national interests under normal circumstances. So, I don't worry too much about the problem of securing agreement on exchange rates.

I do think that there is a need for something on which to focus international discussions, if one is going to talk about policy coordination at all. One can try and discuss directly fiscal and monetary instruments, but the only case when that got anywhere at all was at the Bonn Summit and generally it's very difficult. The problem is essentially that one needs to have a model of the world economy and go right back from some sort of global objective function to the final instruments of economic policy with nothing in between to help organize thought in the face of changing circumstances. I feel that isn't realistic.

The other intermediate target that might be an option would be current account balances. That was considered in the 1970s. Some——

Mr. COX. What kind of balances did you say?

Mr. WILLIAMSON. Current account balances. That is intermediate between the exchange rate and going right back to fiscal and monetary policies. But I can't really see the advantage of focusing on current account balances rather than on exchange rates, which are operational. Those are the prices that get determined from one day to the next in the exchange markets and, therefore, something which one can ask questions about, whether countries are appropriately adjusting their policies. There's a two-year lag before what is done shows up in the current account balance, so it seems to me that while that is a conceivable alternative, it does have some disadvantages.

Mr. **Reifman**. They're so similar it's hard for me to tell them apart.

Mr. **Black**. Just a small argument on this question about whether one should try to attack symptoms such as exchange rates or causes such as monetary and fiscal policy. I think there is an argument, a practical argument, that maybe politicians need to be attacking both of them because they can't understand the connections between the causes and symptoms too well. So it helps, perhaps, to focus their attention on the causes if they're also allowed to attack the symptoms.

Mr. **Williamson**. I don't like the phrase "attacking symptoms." Let's talk about intermediate targets.

Mr. **Balabanis**. On the question of intermediate targets, it seems to me that there would be a case for intermediate targets if you were just thinking in terms of fiscal and monetary policies influencing exchange rates which get to your ultimate objectives. If this were the only thing influencing exchange rates, then by focusing on exchange rates you do cut down the looseness of the linkages. But if there are other things influencing exchange rates at the same time—it seems to me it's quite likely that there would be with all the other kinds of things we were talking about this morning—and you tried to target exchange rates, then you're very likely to be pushed off.

In other words, if the shocks come from other sources and then it seems to me you're just as likely to be led astray as to holding a little bit better onto your policy directives.

Mr. **Williamson**. The way I would express that is to say that there are some shocks which make it appropriate to change the exchange rate target, even if it's a real target. Certainly, if it's a nominal target then differential inflation does it. Even if it's the real rates, real shocks make it pertinent to change the target.

It does, I agree, require a judgment that those real shocks are sufficiently infrequent, or sufficiently identifiable relative to the nominal shocks that one wants to absorb, to make exchange rate targeting a good strategy. If oil shocks came along every six months and portfolio shifting happened only once every five years I would agree with you.

Mr. **Fox**. I'd like to question Jacob Frenkel's and Carter Murphy's reliance on good policy. Evidence indicates that our kind of political economy doesn't produce good macroeconomic policy particularly in the fiscal area. I don't think we should forget about it and give up, but I think we ought to try to have some kind of exchange rate regime that has some integrity within itself, because the cost of the present poor policy mix is really serious and for industry it may exact a permanent price. Presumably, it's not comfortable for the farmers but the land is still there. There's another generation of farmers coming along and maybe the farmers will become productive. But it's hard to envision half of Cleveland becoming productive in manufacturing any time real soon.

So I don't care that much for the expression "attacking symptoms" but I do say that there is something in the exchange rate regime itself that we could seek that's better than the present totally laissez faire adoration of the market.

Mr. **Frenkel**. I want to make sure I'm not misunderstood. It is precisely because I cannot be sure that the conduct of policy will be satisfactory that I wouldn't like to have somebody decide for me, maybe wrongly, the target zone.

In other words, I want to make sure that if there is bad policy the exchange rate tells me that something is wrong. But if I'm going to lose that particular gauge, then I have no direct way to see that something is wrong.

Needless to say, there are other gauges, for example, changes in international reserves, but exchange markets tell us promptly not only what current policy is doing but also what will happen if these policies continue.

Mr. **Williamson**. I just wanted to respond that it's precisely if you want the exchange rate to act as a warning signal that you need to have target zones, so that when the rate hits the side of the zone, people start taking notice. Under floating, exchange rates have gone up and up and those who should have taken notice have not.

Mr. **Reifman**. Larry Fox has taken notice.

Mr. **Fox**. I haven't argued explicitly for target zones, but I frankly don't see any other way to go. What we've forgotton in this country is how to use exchange markets. Every other country has some experience and knowledge as to how exchange markets can be manipulated. We've forgotten how to do it.

There is a role for exchange intervention and it works without billions and billions of dollars being used by the government to try to overwhelm the markets.

You don't want to try to overwhelm the markets but by a tactical approach for specific objectives. The current objective would be to attack the dollar. But current policy abjures the use of currency intervention for no very good reason. The best reason and the poorest reason is put forth by Jacob. Mainly, it's a foot in the door and that door leads to hell. [Laughter.]

Mr. **Solomon**. I agree with Larry that the policy of the last four or five years on intervention has been much too pure and that it wouldn't hurt to try it. But let's remember that in the first quarter of this year the other central banks intervened to the extent of $11 billion and there was no perceptible effect. So I think your statement about intervention, other countries knowing how to do it and the U.S. abjured, they——

Mr. **Fox**. What I'm saying is that every time—not every time but frequently—when a country is involved in a series of interventions, Germany, for example, the Secretary of the Treasury would find it necessary to express his primitive philosophy that exchange rate intervention never works.

Now, if we have a Secretary of the Treasury who insists on talking too much, it's going to make it impossible to work with other countries.

When I say that we've forgotten how to do what other countries know how to do—well, the one thing we've forgotten how to do is be discreet about it.

Mr. **Cox**. How can you say it didn't have effects. The Europeans jumped on the dollar when it was at merely three and a half Deutschmarks and then it went straight down and it bopped back up again and then when they did it again, it has gone down from there. Now, maybe that's not a permanent effect.

But Larry's talking about putting a ceiling on the dollar. If they hit it every time it goes to that level, it's going to take the fun out of riding it up to that and they'll stay away from it.

If the U.S. would be a party to intervention the next time it becomes necessary, it would certainly be more persuasive.

Mr. **Solomon**. Back in 1977-78 there was a Secretary of the Treasury named Blumenthal who was accused vitriolically of talking down the dollar. If you noticed just in the last week or so, Secretary of the Treasury Baker said he would not be at all unhappy to see the dollar at a lower level. Here he is talking about the dollar; the openmouth policy is having no visible effect whatsoever.

Mr. Fox. Explicitely, I don't want an announcement; I don't seek the announcement. I'd like our Secretary of the Treasury to keep quiet.

Mr. **Murphy**. It seems to me that Larry means to say that we have a bad monetary and fiscal policy mix which has given rise to a bad exchange rate; let's correct the exchange rate. And John Williamson would go farther and negotiate a new exchange rate.

In my view, any exchange rate we negotiate which is not our market-determined rate, is the wrong rate. In that sense, we compound our problems. We would not only have bad monetary and fiscal policy, we would also have the wrong exchange rate. The exchange rate will then be yield new problems, mainly, massive capital flows which will have to be contained by some kind of capital control, trade control, or other devices.

It seems to me we have to go back to the roots of bad policies and our job as economists in general is to identify them.

Mr. Fox. I'm not in favor of having bad policy.

[Laughter.]

Mr. Fox. I'm in favor of having good policy. I favor trying to do something about the budget deficit. I favor trying to have appropriate monetary policy. I don't think you can do the exchange rate if you don't make a real sustained effort to do the right thing in both the budget and the monetary policy.

And if you think the present is the "good old days," I disagree. I simply think this present situation is unsustainable. It's unsustainable from the standpoint of industry and agriculture, but it's also unsustainable from the standpoint of our external accounts.

We can't continue to borrow as we're now doing. We've got to call a halt to that and exchange rate discipline might be a helpful instrument.

Mr. **Frenkel**. I think it is completely uncontroversial. I'm all in favor of a good mix of monetary and fiscal policy. I am in favor of a system of a "good flex" and I could also be convinced to be in favor of a system of a "good fix." How do we get there? How do we get to the desirable exchange rate? When we speak about intervention in addition to what we said earlier, do we agree on what rate to intervene?

Very few individuals now will argue that sterilized intervention has an appreciable lasting effect on the exchange rate. Major studies confirm this.

So, basically, when we speak about effective intervention, we need to speak about monetary policy. That's what John Williamson was talking about, directing monetary policy to achieve his exchange rate target; that's what we mean by effective intervention.

The key question is, do you want monetary policy to be hooked to the exchange rate or to some other objective that will also produce a desirable exchange rate?

I believe that the European intervention has demonstrated how short-lived and how weak is the effect rather than how successful it is. Massive intervention had an effect only for a short period of time. There is no substitute for different fiscal and monetary policies.

Mr. **Fox**. But during that period, the President made a statement in praise of the mighty dollar following Margaret Thatcher's visit. The market simply can't ignore what a President of the United States says, even if it has some doubt about what the Seretary of the Treasury says.

Mr. **Reifman**. It is important to remind ourselves that government isn't always wrong. Robert Triffin frequently quotes Abba Eban saying, "Governments always follow the best policy—after they have tried all the others."

Mr. **Hughes**. Let me just shift this back a step and assume we follow Carter Murphy's advice and bring the budget deficit under control and adopt a more appropriate monetary policy. By and large, that's the advice I think the Congress has been getting and often people are told, well, if you do this, we're going to take care of the Larry Fox problem. I mean, the problem that you identified which is that the dollar is uncompetitive in the sense that our manufacturers and agriculture are being put at a serious international disadvantage.

What if, however, the savings and investment imbalance is eliminated here and we're neither a borrower nor a lender. But the same imbalance persists in Japan and Europe. What happens than? What does the world look like? Are we, in the end, back at the same point but through a different mechanism?

Mr. **Balabanis**. I think the answer is that there are other countries outside the United States that could absorb the capital generated by surpluses of Europe and Japan.

Mr. **Hughes**. There is strong support for John Williamson's point, that you need some sort of international agreement. And it is that agreement that should stand behind some sort of realistic target zones.

Redirecting International Capital Flows

Mr. **Bosworth**. I would agree, I guess, with Kent Hughes' point. I have no objection to the set of things that John Williamson said we should do. If you want to say we should to it for exchange rate reasons, that would be fine. But, the same domestic arguments exist.

The real situation is that we don't have any fiscal policy; it's cut up in an ideological battle, and it's going to continue for a long time. And it's not new. Governments always had this difficulty with political restrictions on fiscal policy. And this runs counter, I think, to the standard view today of most economists.

Given that circumstance, nations simply can't afford to let monetary policy be diverted to the foreign balance.

And all emphasis on domestic economic policy is that monetary policy really has to have a domestic focus. We've almost come close to saying: Let monetary policy be used for domestic purposes, and let fiscal policy be used to try to balance our international accounts.

But, if you did what John said, I think I would agree. Your probably wouldn't need all the rest of the other items. It's not clear from this discussion today that anybody thinks there's a serious problem beyond that, except, maybe, the public.

But I think Kent Hughes does raise a problem that is a longer-lasting concern, and that is that the international financial system is not very adaptable to situations where nations continue to have large savings surpluses for long periods of time, or nations have savings shortages for long periods of time.

It's too easy to say other nations will absorb it. We felt when OPEC had a big increase in savings and then we recycled the money through the U.S. banks and sent it to Latin America and all the industrial countries throught it was great. Well, now, Europe and Japan got savings surpluses and the U.S. is absorbing it. And you think it's terrible.

But is it a very good international mechanism to allow significant trade imbalances to exist over long periods of time? Is there a way to make that system more durable? Is there a way to improve the international distribution of capital flows?

I think, to tell Japan, you shouldn't be investing your money in the United States, you ought to take it and put it in less developed countries, is not something Japan is going to buy. It's got all these Japanese citizens who are going to retire, and they want their money back one day and they don't want to run the risk of economic collapse.

It seems to me the answer to the problem is to come up with an international monetary system that is more forgiving of capital flows and spread the risk more widely so that capital surplus countries could, to the world's benefit, direct capital to LDC's and places like that, with high rates of return.

Of course, on the other side of that argument, the U.S. is offering a very high rate of return right now to other countries. It's not clear that they are making a mistake. But I think if we could set more mechanisms to diversify international capital flows and spread risks more evenly, we could tolerate these situations where there's a set of industrial countries who, for well-understood reasons, have and are going to continue to have sharply reduced needs for capital formation.

Japan is just not going to grow at 15 percent a year. Therefore, it can't have investment equal to 30 percent of its GNP. But its private savings rate refuses to come down.

Well, we all know the problems associated with continuous, long-run budget deficits. And Japan maintains that they know of no policy which would reduce private savings because that's what people want to do. Well, then, wouldn't you like to have some mechanism where that could be generated back into the world capital markets with less of a disruptive effect? If the U.S. decides to be a dissaver, the real problem is we disrupt everybody else when we try to do that.

Isn't there a way that they would not bear the same disruption if we made the decision we don't want to save?

That seems to be what you're looking for in an international mechanism. Now, one answer is more discipline on countries like the U.S. The other one is to say the country's got a right to make those decisions. how do we make the international system more forgiving or adaptable to us, instead of having those terrible adjustment problems.

Mr. **Reifman**. One answer is a big foreign aid program.

Mr. **Murphy**. It seems to me we're making up a problem that doesn't exist. Kent, for example, says, "Suppose the rest of the world doesn't adjust when the United States increases its savings ratio and does a little more saving and a little less dissaving." The hypothesis—that there is no adjustment—denies the functioning of the price system. It is projecting disturbances in a linear way without acknowledgment of the adjustment capacities in the system. Clearly, if the United States, for example, engages in less dissaving, real interest rates in the world will be smaller. If savings pile up elsewhere—initially in money balances—they must spill over into purchases of securities, driving interest rates down, or they will spill over into purchases of goods, in wich case the excess savings shrink. The Japanese have had no reason to reduce their savings. We have given them a high return on their investments here. Somebody, somewhere, will continue to do so, or else the Japanese will reduce their saving rate. It seems to me that the fear that there "won't be any outlet for savings" is irrelevant.

Mr. **Makinen**. People interpret history differently, but I think one of the things we learned from the 1960s and 1970s is that it's awfully hard to target what are unobserved real variables with monetary policy. It's hard to target real interest rates or real foreign exchange rates. Unless you get the natural or equilibrium rates, the consequence is either acceleration of inflation or deflation, as the case may be. It's hard to think of foreign exchange rates as anything but a short-run problem. If we're only going to deal with the short run, using monetary policy to target foreign exchange rates may be the way to go. If you're going to deal with the longer run, however, it seems to me that a case can be made that a more stable expansion will ensue throughout the world if monetary policy is fixed on stabilizing the price level.

So what we ought to do is to allow the market to take care of foreign exchange rates. I think a case can be made for monetary policy along the line of directing it to achieve a stable price level and let the market govern the exchange rate. I'm willing to make that case.

Mr. **Williamson**. I might just say that I completely agree with the argument, but I think the conclusion is a complete non sequitur. Of course you have to target the natural rates if you're going to do good rather than bad. The same thing is true in contracyclical domestic policy. If you try targeting an unemployment rate that's unrealistically low, you make things worse, not better.

Mr. **Makinen**. Clearly, then, if you are going to target the foreign exchange rate, if the U.S. is going to announce such a rate, it's a multinational agreement; or else it's going to produce some variations in the inflation rate.

Mr. **Williamson**. Actually, if you target too low a real exchange rate, then you generate accelerating inflation. Just like unemployment below the natural rate, that's true. What that tells you is that you'd better get your target right.

Mr. **Makinen**. Can people do it? You'd have to have a conference in session continuously, it seems to me, in order to keep adjusting the exchange rate all the time. Wouldn't it be easier to simply direct monetary policy to maintain a stable price level?

Mr. **Williamson**. If you're targeting real rates, then differential inflation doesn't throw them out. But you would still need regular reviews, once or twice a year.

Mr. **Balabanis**. I share this distrust of the intermediate target and ask whether or not, if we get fiscal policy right and the savings-investment balance right, if our objective is ultimately a sustainable current account position, we may have a much better idea of how we get to that through our savings and investment balance than we do through the price mechanisms by which this will be transmitted from the savings and investment balance to the current account.

Mr. **Solomon**. We had a morning on the causes and the effects of the strong dollar. And, so far this afternoon, we have been discussing policies to a large degree. The main policy proposal is target zones. In wonder, shouldn't we spend a little time on what other policies might be followed, given our reactions to the discussion this morning? Obviously, we ought to do something about the fiscal and monetary imbalance of the United States, and Europe, as well, as Japan. Both for internal reasons and because presumably it will generate more sensible exchange rates.

On the other hand, we have heard the argument here in the last two or three months that if Congress acted to reduce the deficit this might increase confidence in the United States and the sustainability of American expansion and might, in fact, strengthen the dollar. Who knows?

Let me just throw out and see if people want to talk about policies that deal with the present high dollar, quite apart from target zones.

Mr. **Fox**. I've thought about that for a couple of years and I just shrug my shoulders and say we'd better go ahead and get it down and see what happens. We have to get the budget deficit down anyway. If a lower dollar is one result, the Administration will smile. But, in the end, I think the tail will catch up with the dog.

Mr. **Williamson**. Why not make sure? Why not say, "One of the reasons we're getting the budget deficit down is so we can get the dollar down"? And if you say that, it's much more likely to come true.

Mr. **Fox**. My only concern about that is the possible negative effect of an announcement that doesn't come true. That tends to reduce confidence in the ability to do anything in the exchange market. It seems to me that's the area where we have to bolster confidence. Therefore, quiet, discreet moves, without explicit statements, may get you further than bold analyses.

Mr. **Frenkel.** On this, I tend to agree with Larry Fox. And the reason is that it is useful to put matters up front and conclude that we might as well lower the budget deficit because it has many positive effects, including on the exchange rate.

But in this context I think it's high time that we don't speak about budget deficits, but rather speak about at least two components. Either speak about government spending or speak about government revenue. This will force us to be more concrete. We will need to specify which spending and what taxes should be changed. Further, the distinction between spending and taxes is necessary since a unit rise in the budget deficit arising from a rise in government purchases has a different impact on the economy than a unit rise in the deficit arising from tax cut.

Mr. **Reifman.** I don't see much disagreement about the need to get our fiscal situation under better control and, thereby, give more leeway for ease in monetary policy. We also talked very briefly about the need for other countries to pick up the slack.

Germany and Japan have a very tight fiscal policy. Right now, as Bob Solomon keeps reminding us, since 1980 their fiscal policy has tightened every year consistently.

Mr. **Black.** What I think John Williamson said earlier was concerned with the possibility of a disorderly retreat from present policies, a retreat from present monetary and fiscal policies that's forced by some kind of decline in the exchange rate. And that might be very unpleasant.

What we really want to have is a policy change that produces a smooth and easier, perhaps rapid, but at any rate a smoother change in the exchange rate without a loss of confidence.

One way to ask that question is whether or not we could have a change in fiscal policy in the restrictive direction in this environment without having a recession? We already think the probability of a recession is rising; there's no doubt of it.

And it's probably increasing because, inevitably, it's somewhat difficult to engineer a switch between monetary and fiscal policy that can be neutral.

So I think the chances are it would certainly raise the likelihood of recession. If we have a recession coming on, what is that likely to do to the dollar? I don't think that's really been addressed yet. I'd like to suggest that a recession would push it down, because while you do have some offsetting effects on the current account and capital account, presumably interest rates would tend to decline, leading to less capital inflow. At the same time, the current account would tend to improve because we would have less imports.

But it's my guess that the net result would be a decline in the dollar. If this were brought on by a shift towards more restrictive fiscal policy, then we might see it occurring rather quickly.

Do we need any other policies to smooth this out and prevent it from being too disorderly. That's what I was thinking of in response to Bob Solomon.

Mr. **Reifman.** Stan, thank you very much. Time is getting short and I was hoping that you would comment on intervention.

Mr. **Murphy**. Before he takes up the intervention issue, let me comment, too, on the point Bob Solomon raised, because I think that's a very interesting point. Suppose we shifted our fiscal policy but, in spite of it, or because of it, the capital inflow continued, and the dollar remained over-valued.

I think John Williamson would consider that bad because he thinks the exchange rate is wrong. I have no objections to that. It would only be revealing that the world wanted to hold its portfolio in U.S. dollars and that Americans wanted to hold the assets the foreigners offered—goods or claims on foreigners. If people want to hold their assets that way, why is it appropriate for official policy to deny them that privilege. There are welfare aspects to holding the portfolio that one wants to hold as well as welfare aspects in producing the goods one wants to produce. Somehow, the freedom of people to be satisfied in their desire to hold a safe and rewarding set of assets needs to enter our social welfare function.

Mr. **Frenkel**. I just want to have a two-handed intervention. While I have instinctive sympathy with the argument that these are two consenting adults and if they want to hold dollar assets, let them hold them. I still think that it is a perfectly valid argument to say that macro-economic policy has legitimate concerns about the results that the market produces. If I, as a policymaker believe that the export industry is developing in a way that is undesirable from the global perspective, then I should try to get the macro-economic policies changed.

You can argue with me about my taste and about what right I have to decide how the export industry should fare, and I would completely agree with your right to object to my preferences. We can argue about them. But that's the essence of politics. I have much sympathy with using the market, but I think it is legitimate to recognize that when there are externalities the market outcomes may not be always optimal from the social point of view.

More specifically, many might perfer to keep capital flowing to the poorer countries of the world, not just the United States, and I can see the intellectual case for dealing with these issues in terms of a cost-benefit analysis which allows for the relevant externalities.

Mr. **Solomon**. It's great to hear that from the University of Chicago.

Mr. **Reifman**. He won't be able to go back there. [Laughter.]

Mr. **Frenkel**. I should tell you, the University of Chicago has always been less homogeneous and more open minded than its image has been. As a matter of fact a great deal of our knowledge of optimal policies in the presence of distortions and externalities originated from Chicago. [Laughter.]

Mr. **Reifman**. We're pleased to near it.

Mr. **Solomon**. I see it and I congratulate you.

Intervention Revisited

Mr. **Reifman**. Stanley, did you want to add anything on intervention, or have we beaten that to death?

Mr. **Black**. It all depends on how much you want to hear about it.

Mr. **Reifman**. Not much. [Laughter.]

Mr. **Black**. I personally don't think it has much of a role in present circumstances because we've pretty well identified the major problem as the domestic monetary and fiscal mix in the U.S. However, I think that if there is a tendency for us to get out of our problem in a disorderly fashion, which is one of the possibilities that has been raised, and I don't think we have been able to rule it out, if that eventuates, then I suspect that the strong views against intervention that are characteristic of this administration, will probably change somewhat.

At any rate, we perhaps ought to consider to what extent intervention would be of any use in a situation where there was a relatively disorderly decline of the dollar.

Normally, we think that there are three possible objectives of intervention. The first objective is to reduce disorderly markets or to prevent them from becoming disorderly. That should normally be done when you have some large, unanticipated shocks to the market. But presumably this relies upon the assumption that the market itself is not going to handle the problem adequately. There must be some kind of market imperfection, presumably imperfect information, presumably risk aversion. These kinds of things would probably lead private speculators to respond inadequately, according to the usual argument, so that we may, in fact, find the exchange market to be inefficient.

There have been a number of tests of this proposition which have been inconclusive. Some of them, at least, suggest that the exchange market is not always efficient. So smoothing out disorderly markets is certainly a valid function for intervention, and that would certainly apply to the case of bubbles or bandwagons, if they occur.

So in those kinds of situations, there seems to be no particular argument against it. The question that I think we need to raise is whether or not it could be effective under those kind of conditions.

The second kind of objective that we usually consider is smoothing out sustained fluctuations in exchange rates. And this would only make sense if private speculation is somehow inadequate to smooth out the fluctuations as we expect the private market to do. If that's the case, it must be because the central bank has some kind of information advantage over the private market. This may or may not be true. It depends upon whether or not the central bank's information advantage has to do with say, the future course of monetary policy and possibly, also, fiscal policy.

The central bank, of course, is in a position to influence this, which is one reason why I would expect private market participants might not have the same information as the central bank does.

The third possible objective is aiming at a target zone such as the one that John Williamson has introduced. This definitely requires the central bank, it seems to me, to have some kind of information advantage with respect to future monetary and fiscal policy.

Basically, it seems to me that this targeting function of intervention has two possible sides to it. It could be used essentially as a substitute for monetary and fiscal policy. That is to say, the central bank could have a certain view of what it's planning to do with respect to monetary policy and use its exchange market intervention to prevent the implications of that from appearing in the exchange rate.

That is what I would call using it as a substitute for monetary and fiscal policy, in a way. And I think we have had some examples of that. I mentioned the U.K. in the 1970s, the period 1972 to 1975, as an example where there was a relatively expansionary monetary and fiscal policy. The pound would have depreciated very substantially, but they intervened just to prevent that from happening, covering up the situation, so to speak.

There is, of course, an alternative possible use, and that's as a complement to monetary and fiscal policy. Here we are talking about a situation somewhat like the U.S. in the period 1978 to 1980, when we were moving toward more restrictive monetary and fiscal policy, and we intervened in the market to try and strengthen the dollar on the international side, just as we were doing it on the domestic side.

So those are the primary objectives.

The question that remains is whether or not intervention can be used effectively. The tests that economists have done of its effectiveness, as I've said, have had somewhat mixed findings. In order for the intervention to be effective, it would be necessary for the assets denominated in different currencies to be imperfect substitutes in private portfolios. The tests that have been done are usually not inconsistent with the hypothesis that assets are imperfect substitutes which, of course, would not be inconsistent with risk-averse behavior by agents in the private market.

I'm talking about sterilized intervention now, in which the money supplies of the countries involved are not affected.

Similarly, if markets were inefficient, so that individuals were not taking full account of information available to them, it would also be found that intervention would be effective. We don't know whether the results that we have are reflective of market inefficiency or of imperfect substitutability. It could be one or the other, but there does appear to be some possibility, at least, that in this particular area, a shift in the composition of the currency denomination of assets brought about by intervention would lead to some change in the exchange rate.

How much? There are some direct tests of whether or not a change in asset composition—say, the central bank sells D-mark securities and buys dollar securities—whether this would lead to a significant change in the exchange rate. These tests seem to show a really negligible effect for such a shift.

I'm not sure whether that's conclusive evidence that sterilized intervention can't have any effect. It seems to me that we'd have a hard time estimating such demand functions. In fact, if the estimated effects are small, it may just indicate that the technique used to make such estimates is fairly inadequate.

There are another possible number of effects that intervention might have. One of them is what we might call a signaling effect. Intervention may be thought of, at least in one interpretation as an indicator of the direction of future monetary and fiscal policy or as a complement to future monetary and fiscal policy. If the central bank is supporting its currency, then this might indicate that it has plans that it intends to carry out, so that it won't ultimately wind up losing money.

This kind of signaling certainly could have an effect in the market. There is a contrary kind of signal effect too. If, in fact, they are using it as a substitute for monetary and fiscal policy, then that's a signal, too, of an entirely different kind, which will tend to lead the markets, as was said, in the title of Taylor's famous paper, to "bet against the central bank". At any rate, the signaling effects are certainly possible. On the other hand, you have to figure out what is the signal, whether to buy or to sell.

The final effect of intervention is that by intervening in the market to smooth out disorderly fluctuations, by making short-run fluctuations somewhat smaller and reducing volatility, the central bank may be able to reduce the amont of uncertainty in the market. If it's able to reduce the amount of uncertainty in the market, then it may be able to affect the risk premium, which those who are taking on foreign exchange risks demand.

It may thereby be able to increase the response of private speculators to the incentives that they see, so as to lead to more stabilizing private speculative behavior and maybe lead to easier financing of current account deficits.

Given those arguments about the effects of intervention, it seems to me that one could conclude that it should be effective in countering disorderly markets. It might also effectively influence the level of the exchange rate if it's used as a complement to monetary and fiscal policy. You might have to argue that it should be nonsterilized or at least certainly coordinated with a monetary policy in the same direction in order that it could be somewhat complementary. But, on the other hand, if the monetary and fiscal policy is leading the dollar to be high, it certainly doesn't make any sense to try and push it down with intervention. Intervention is not going to do that trick.

Mr. Frenkel. I have very little to add. This was a beautiful survey of the key issues of intervention, but the most important point was that we really want to draw a distinction between two questions. First, should we intervene? Second, how effective is the intervention? On the first, I think that Stan made the very important point. He put it in a different way. Basically, not everything that moves has to be stopped. Not all changes in exchange rates are inappropriate.

Those who favor intervention should also ask if they favor intervention in the Dow-Jones. It is clearly a thing that moves. It is clearly a thing that has important impact on the economy. It is clearly a thing that reponds to policies. It sounds almost like the exchange rates.

Yet when we talk about foreign exchange intervention we do not talk about Dow-Jones intervention. I don't want to identify the two, but I think it's important for us to make sure why and in what way exchange rates differ from the Dow-Jones index—I think they are fundamentally different—but let's make sure that before intervening we know exactly why.

Can intervention be effective? If it is signaling to the market the seriousness of government, intervention could be effective. But, since we know that governments do not agree on the target, their limited intervention would not be credible as a signal for a lasting effect, because everyone knows that no central bank is going to commit its printing press or its sterilized intervention policies just for an exchange rate.

Mr. REIFMAN. Let me suggest a couple of things that we didn't discuss. One is Ron McKinnon's proposal that we have a world monetary policy. We may not want to discuss that at this late hour. [Laughter.]

Do we want to discuss Mundell's proposal that the U.S. just try to get its prices under control, and let the rest of the world worry about getting the exchange rates right? No? We won't discuss that.

John [Williamson], do you want to sum up?

Mr. WILLIAMSON. I would love to do that, but I am sure that if I tried to sum up——

Mr. REIFMAN. We'd start the whole discussion all over again.

Mr. WILLIAMSON. So let me not do that, but instead make one or two comments on what's been said, especially about sterilized intervention. I will go back to a question that was raised. Suppose that there was a big cut in the budget deficit and the dollar didn't respond, because, basically, what is motivating this capital flow is not so much the high interest rates and calculations of relative rates of return, but rather that foreigners and U.S. banks have a basic urge to acquire an extra $100 billion a year in the form of dollar assets. If, therefore, one did not get a dollar depreciation after a cut in the budget deficit, surely we would agree that if the Fed adopted a policy at that stage of being willing to supply an extra $100 billion a year of dollar assets and itself make investments of $100 billion a year in the rest of the world, that that would satisfy the demand for dollar assets and enable the exchange rate to decline. In other words, would we really disagree that sterilized intervention on a sufficiently large scale would be capable of having a major effect on the exchange rate?

It seems to me that we customarily think in terms of intervention on a tiny scale. People have talked about $11 billion as being "massive intervention." It's not massive compared to what has historically been done relative to the scale of international transactions. When Keynes was trying to figure out how big the IMF should be, if you gross up that figure to the present size of the world economy, you come up with something like $700 billion or $800 billion. Seven or eight times the present size of the Fund, in other words. And presumably, the thought was that a Fund of that scale was needed to be able to control exchange rates. Whatever the market generates is not necessarily socially optimal, because market operators don't always have the motivation to ask themselves what is sustainable. I don't think it necessarily has to be an informational advantage, just a different set of motivations. If we had left exchange rate determination to the market in the immediate postwar years, would we really have got as good a postwar economic recovery as, in fact, we did get?

So I think the ineffectiveness of sterilized intervention has been oversold. The evidence that the Jurgenson Committee examined does not sustain the rather authoritative-sounding statements in the report. Recent intervention has been on a very small scale, relative to the size of the markets, and, as Larry Fox was saying, has on occasion been undermined by the U.S. Treasury team—the previous team, not the present one.

Mr. Fox. The new Treasury Secretary [Baker] has done it too.

Mr. Williamson. So that concludes my remarks.

Mr. Fox. Does anyone doubt that a serious recession would really bring the dollar down, a serious recession in the United States?

Mr. Reifman. Is that what you're advocating, Larry?

Mr. Fox. No, I'm asking that question. Wouldn't it be wise to begin to develop some defenses to mitigate the consequences of that? Isn't the most logical course following a serious recession a plummeting of the dollar? Would a target zone, in place, or at least a practice of joint intervention carefully considered by central banks in a quiet way, in anticipation of problems, wouldn't that be a helpful thing?

Mr. Bosworth. Your remarks almost seem to imply that ultimately the situation will led to a recession.

~~Mr~~. Fox. ~~I thin~~k it's inevitable. I think we're going to have a recession. Whether it will be deep or not, I'm not so sure.

My question implied a deep one and asked for consideration of the consequences.

Mr. Bosworth. I just don't see that this policy should be expected to culminate in a recession. The problem of large budget deficits of the type we have is that they are overly expansionary in their effects on the economy.

I do not agree either that the current economic situation is unsustainable. Within the context of a world economy, other industrial countries have huge saving surpluses relative to domestic needs, and the U.S. has a huge saving shortage. This sort of situation can continue for a fairly long period of time, with, I admit, enormous cost to the export industries that you're concerned about and costs to future generations. But I don't think the argument that we must reduce the budget deficit or it is going to cause a recession is credible.

You should deal with the budget deficit, I agree with that, but not through false arguments that budget deficits cause recession. The next thing you know, somebody rewrites history and tells you World War II came before the Great Depression.

That's not the sequence of events.

Mr. Reifman. Thank you very much. The conference is adjourned.

[Whereupon, at 3:40 p.m., the conference adjourned.]

Appendix 1

FLOATING RATES AND THE OVERVALUED DOLLAR[*]—BY RUDIGER DORNBUSCH, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The No. 1 policy problem for the world economy is to achieve a soft landing, locking in the gains of the past two years. The overly strong dollar has been immensely successful in generating a non-inflationary recovery in the U.S., but has done so at the cost of a very large loss in international price competitiveness. High real interest rates have not stood in the way of a brisk recovery while fiscal expansion pushed the economy, but are now a heavy levy on profits in an economy where growth is becoming moderate. The solution to the twin problems of high real rates and the overvalued dollar is decidedly *not* a reform of the international monetary system, monetization of budget deficits, or a collapse of the dollar.

The intelligent solution is to correct our budget deficit and, at the same time persuade our trading partners, especially Germany, the U.K. and Japan, that the time has come for them to take the initiative for sustaining growth by long overdue fiscal expansion. In addition, given these fiscal policy adjustments, monetary authorities here and abroad should accommodate a continuing recovery by allowing a decline in real interest rates. Such a policy package would limit the decline of the dollar (and the attendant risk of a steep increase in U.S. inflation) and assures a continuation of world recovery under sounder financial conditions.

International agreements about intervention, target zones or even fixed exchange rates are altogether implausible as long as Congress and the administration cannot agree on a restoration of fiscal balance. Equally important, exchange rate commitments are premature as long as governments in the countries with excessive fiscal tightness do not cease taking a free ride on the world economy.

Once the fiscal alignments are underway and real interest rates are allowed to ease, the dollar will move down, restoring a sustainable current account. Without those fiscal realignments we should certainly not commit the U.S. to target exchange rate zones. We certainly should not be prepared to monetize deficits in an effort to take the dollar down, and we should resist freezing the dollar at the present level, except as the counterpart of a strong and sustained foreign expansion. Until basic macroeconomic policies are locked in by actions on the budget here and abroad, we should certainly not undertake any exchange rate commitments.

THE STRONG DOLLAR

Since 1979–80 the dollar has undergone a massive appreciation in world currency markets. The extent of the appreciation, reaching a peak earlier this year, is shown in Table 1. Even though the decline since the peak in February 1985 is already large, the remaining cumulative appreciation from 1980 to April 1985 is huge. This is particularly clear from the movement in the Morgan Guaranty index for the trade weighted dollar exchange rate.

TABLE 1.—DOLLAR APPRECIATION SINCE 1980

	1980	February 1985	April 1985	Percent change 1980 to April 1985
Yen/$ Rate	226	260	247	9.3
DM/$ Rate	1.82	3.29	2.97	63.2
Morgan Guaranty Index	90.7	136.4	128.5	41.7

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[*] Statement Before the Committee on Finance of the U.S. Senate, April 24, 1985.

Given the attention that Japan is attracting, it is important to recognize that Germany (and Europe) had in fact a vastly larger depreciation. The movements in nominal currency values are already sizeable, but their impact has been reinforced by the fact that U.S. inflation was higher and productivity growth lower than that abroad. As a result, our international competitiveness has been impared by the combined effect of these three factors. The point is perhaps most effectively made by noting the data on hourly compensation in manufacturing in the U.S. and abroad, shown in Table 2.

TABLE 2.—HOURLY COMPENSATION IN MANUFACTURING

[U.S. dollars per hour]

	United States	Japan	Germany
1978	8.30	5.40	9.65
1984	12.82	6.42	9.57
Percentage increase	53.0	18.9	-0.8

U.S. competitiveness, of course, suffered even further than the wage date in Table 2 indicates, because productivity growth abroad was significantly higher than in the U.S. economy. The deterioration of external competitiveness is quite apparent in comparative industry price data. For example, in the period 1980 to 1984 the price of U.S. exports of electrical and electronic measuring devices increased by 54 percent over the price of comparable imports; for telecommunications parts the deterioration in price competitiveness is 32 percent, 57 percent for thermal household appliances and 48 percent for textile finishing machinery. These are not special cases; the same pattern prevails throughout manufacturing.

The loss in external competitivenss is patently obvious from a number of trade indicators. Table 3 shows data on growth of export and import volumes for several countries in the period 1981-84. Cumulative U.S. export growth has been negative, while import volume has increased sharply. These data are affected by differences in economic growth at home and abroad, but they also reflect our loss in international cost competitiveness.

TABLE 3.—GROWTH IN TRADE VOLUME

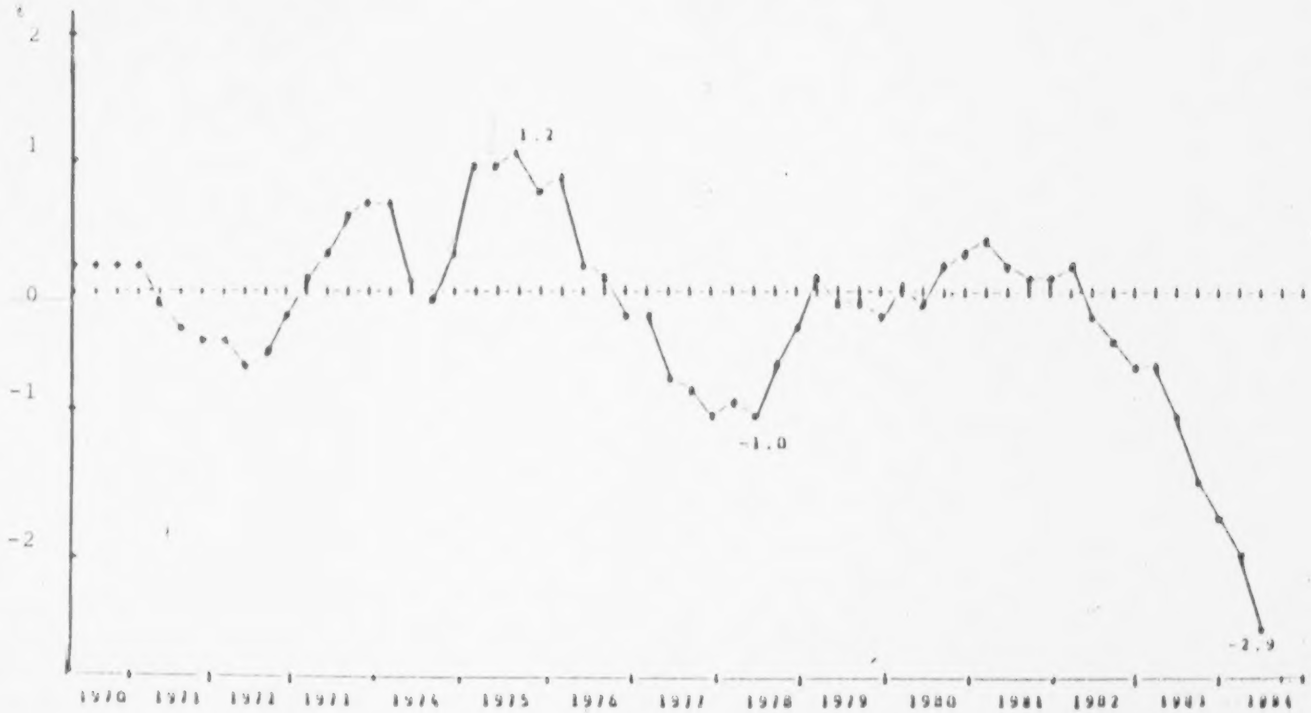
[Cumulative percentage change: 1981-84]

	United States	Eurpoe	Japan	Latin America
Exports	-12.7	15.8	32.1	17.7
Imports	27.8	7.0	9.0	-36.9

Source: IMF World Economic Outlook, April 1985.

The deterioration in external performance is summarized in Figure 1, showing the U.S. current account deficit as a fraction of GDP. The deficit is at an all time high. Econometric estimates suggest that as much as 60 percent of the deterioration is due t the loss in international competitiveness. The remainder is accounted for by the relative cyclical position of the U.S. and the rest of the world and by the sharp trade adjustment of Latin America. Our spending growth has run strongly ahead of spending increases abroad. This is particularly true, of course, for debtor LDCs where the adjustment programs have led to increases in their exports and deep cuts in our exports to them. While some of these trade losses may be transitory Latin America is bound to have significantly less access to external capital in the coming years and hence will have to run persistent trade surplusses to earn the dollars with which to pay interest to our banks.

Figure 1
The U.S. Current Account
(Percent of GDP)



The large divergence between U.S. import and export performance is, of course, the channel through which the U.S. has spread growth abroad. Our spending has increased significantly more rapidly than our income and the divergence has sustained or made possible income growth, budget improvements and debt service abroad.

DOLLAR APPRECIATION AND THE U.S. ECONOMY

The rise in the dollar has been a major factor in the slowing down of inflation in the U.S. economy. The normal pattern is for inflation to fall in a recession, but to show a sharp increase in the recovery. From one business cycle to the next (measured from peak to peak) inflation used to increase, thus ratcheting upward over the past thirty years. That pattern, for the moment, is broken. Inflation and wage settlements are low and for the time being do not show signs of the normal cyclical recovery. Several complementary factors that help explain this development follow.

Deregulation and the weakening of unions are clearly important factors. The dominant element is likely to be the record high, and still high, level of unemployment. But the strong dollar must also be counted. The appreciation of the dollar has lowered import prices absolutely and, thus, has directly contributed to disinflation. But the increased import competition has also exerted a dampening effect on the price increases domestic firms could afford, and on the wage increases they could concede. Dollar overevaluation thus has exerted a chilling influence on the entire wage-price setting mechanism. This is particularly the case for raw materials, where the normal cyclical recovery has simply not taken place. The fall in dollar prices of agricultural commodities have helped keep food price inflation and hence wage demands low.

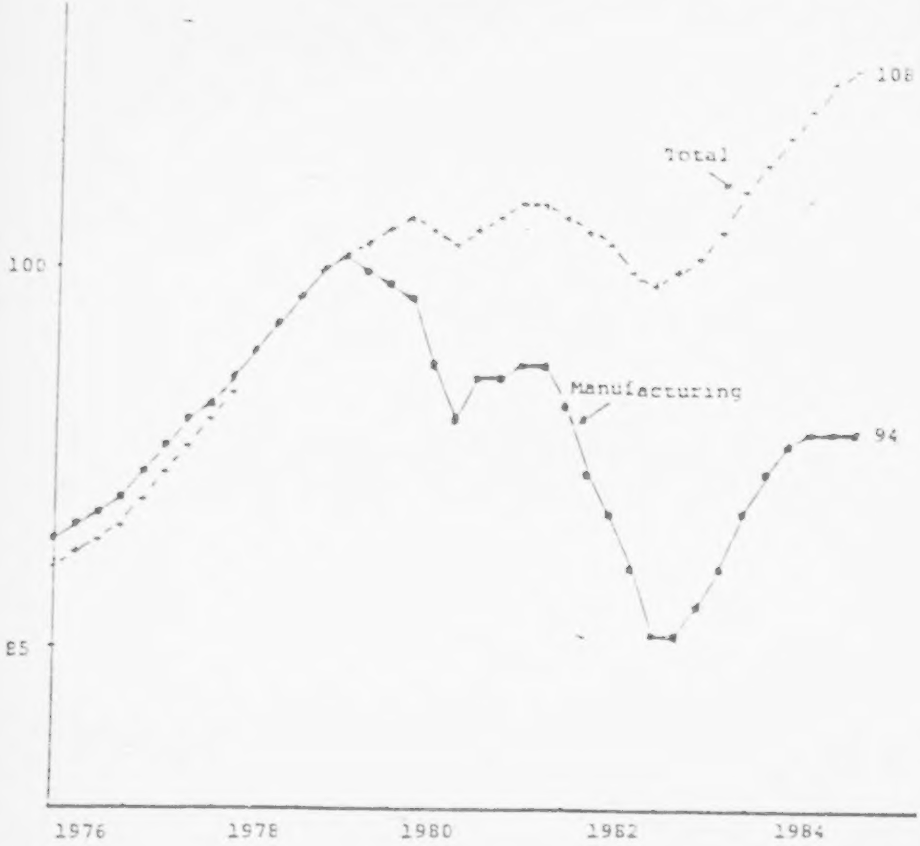
The rule of thumb is that a 10% dollar appreciation reduces inflation by about 1 percent. But that number may be a considerable underestimate of the pervasive effects of a sustained, large appreciation. Taking into account direct effects as well as wage channels, a 10 percent dollar appreciation may reduce inflation by 2 percentage points or even more. Given the size of the dollar appreciation since 1980, this suggests that in addition to unemployment the strong dollar may be the main reasons we have been able to enjoy a non-inflationary recovery so far.

The dollar overvaluation has also involved costs, most obviously in the deterioration of manufacturing competitiveness, profitability and employment. Manufacturing has been by-passed in the recovery and this is particularly true for the capital goods industry, excepting space and defense related firms. While total industrial output grew 8 percent since 1979, defense and space related production grew by 58 percent. This suggests a decline of civilian production in the midst of a strong recovery.

The poor performance of manufacturing is reflected in the decline of manufacturing employment since 1979. Figure 2 shows total employment (nonagricultural establishments) as well as employment in manufacturing. While total employment grew by 8 percent since 1979, manufacturing employment today is more than 6 percent lower than six years ago. Part of the reduction in manufacturing employment reflects productivity growth and thus must be welcomed. But that will not go far enough to explain the significant fall. The recovery of the past two years was simply insufficient to make up for the inroads of import competition and loss of exports on manufacturing employment.

Figure 2

U.S. Employment Trends
(Index 1979:1=100)



The common argument against excessive fiscal expansion is that it leads to crowding out, as high interest rates displace private sector investment spending and thus growth of potential output and employment. But there is a more immediate crowding out as firms that lose competitiveness cease operations in the high wage country and shift operations abroad. There is accordingly a direct loss of useful capital and of employment opportunitites. This process will be more intensive the larger and the more persistent the overvaluation. In the U.S., the recovery has for a while overshadowed these effects of the strong dollar, but they are now becoming quite apparent.

WHY IS THE DOLLAR HIGH?

The strength of the dollar has been explained by three basic arguments: safe haven factors, bubbles, and the divergent policy here and abroad. They are not necessarily alternative explanations and each may well have played a role.

The safe argument asserts that the U.S. has become a relatively safer place for investment, given increased uncertainty and instability in the rest of the world. It is difficult to put the finger on the increased uncertainty, especially in 1984 and early 1985, when some of the sharpest appreciation occurred. The agrument is also surprising in view of the fact that as recently as 1980, the U.S. was definitely not the place sought out by foreign capital. Of course, the Reagan presidency must have made some difference.

The bubble argrument emphasizes that asset markets can set prices of currencies, longterm bonds, stocks, or real estate that are unrelated to fundamentals. For example, stock prices might be set in excess of the value of prospective earnings of capital or land prices in excess of the prospective value of rentals. Similarly, currency value might be set outside a range that is sustainable considering the impact of the exchange rate on economic activity on the external balance. Expectations of high capital gains carry these markets and compensate for the fully perceived risk of a collapse to fundamentals. Such bubbles have occurred in the past, and they may well be at work in foreign exchange markets. Bubbles are a serious problem whenever capital gains dominate by a large margin interest differentials. In these conditions the speculation centers on whether further capital gains can be sustained or whether changes in fundamentals could force a shift in the market. In the exchange market this speculation has focussed on the trend of U.S. interest rates and on the strength of the economy. A weakening of rates is seen as the signal that the stampede from the dollars will get underway.

The safe haven and bubble argument have in common that they recognize an overvaluation of the dollar. Nominal exchange rate movements, in this view, have taken the rate away from a sustainable level and, thus ultimately, a collapse is inevitable. The persistence of the exchange rate at this disequilibrium level in turn is seen as distorting resource allocation. An alternative approach argues that the fundamentals have changed and thus warrant a high value of the dollar, even if it is troublesome for some sectors and unwise as a policy. The agrument focusses on fundamentals in that the U.S. and other industrialized countries have followed a sharply diverging trend of policies which is responsible for the dollar appreciation.

Table 4 shows data on fiscal policy that support this view. Where the U.S. has shifted dramatically toward a deficit, Germany, other European countries and Japan have moved in the opposite direction with much vehemence.

TABLE 4.—GOVERNMENT BUDGET TRENDS

[percent of GDP]

	Actual budget deficit		Change in adjusted budget deficit 1980–1985
	1984	1985	
United States	3.2	3.6	−4.5
Germany	1.7	0.9	+4.2
Japan	2.2	0.8	+3.2

Note: The adjusted deficit data are corrected for the effect of unemployment and inflation.

The divergent shift in fiscal policy was reinforced by a much stronger increase in interest rates in the U.S. compared to the rest of the world. Even today U.S. interest rates exceed those in Germany or Japan by more than 250 basis points and by-even more when adjustments for inflation are made. The longterm interest differential, between the U.S. and Germany or Japan, exceed 400 basis points. If the probability of a dollar collapse were negligible these differentials would imply a really huge incentive to hold U.S. securities. As it is, the possibility cannot be ruled out, but in the early stages of the recovery it may well have been the case that depreciation was as likely as appreciation, thus leaving a net incentive to shift toward U.S. securities.

The strong dollar can thus be seen primarily as a reflection of monetary and fiscal policies here and abroad. The dollar is clearly overvalued from the point of view of manufacturing, but even so our aggregate growth performance has been above average by the standards of post war recoveries. Without a deterioration in our trade balance, the growth in 1983-84 would have been entirely unreasonable and the interest rates, in the absence of accommodation, would haved shifted difficulties to housing and interest-sensitive manufacturing sectors. Given the enormous fiscal stimulus crowding out was simply unavoidable, except if the Fed has chosen to accommodate even higher growth by an exchange rate oriented monetary policy which might have meant a very strong monetary growth so as to monetize the deficits. The only choice would have been to take the crowding out in interest-rate sensitive sectors rather than in the external balance. As it is, our growth during the recovery has been above average for the post-war period; asking for more is unreasonable.

THE EXCHANGE RATE SYSTEM

For at least 100 years the international monetary system has been considered inadequate, whatever the arrangements: the gold standard, bimetallism, the gold exchange standard, dollar standard, fixed rates, managed rates and floating rates. Throughout the inter-war period international monetary conferences sought to scope with the conflicts posed by divergent national policies and interests. The problems were not solved then, nor at Bretton Woods, the Smithsonian or Rambouillet. They will also befuddle any new initiative the U.S. Treasury might promote.

Figure 3

The International Monetary System
(Exchange Rate Indices,Log Scale)

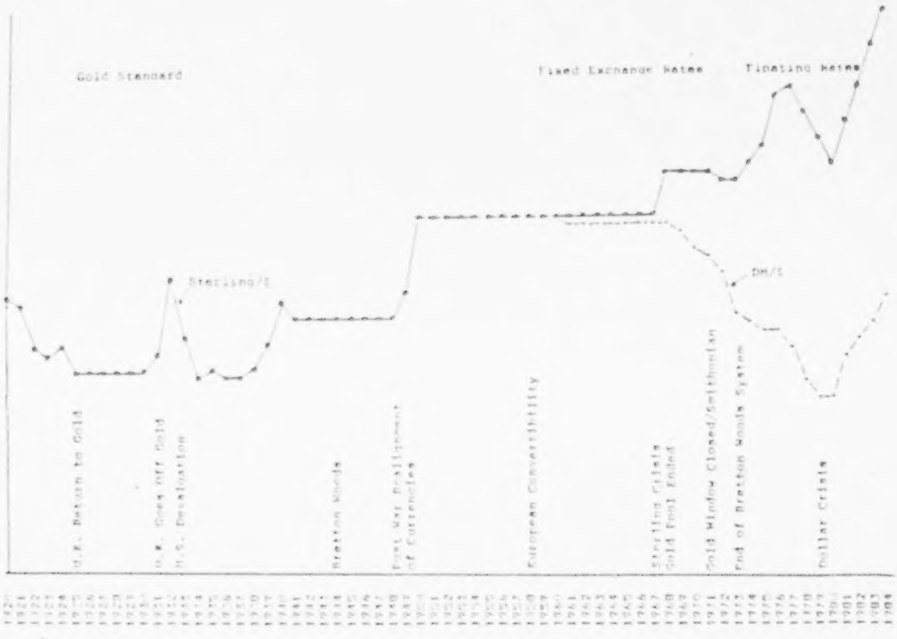


Figure 3 shows the international monetary system in the past sixty years in the light of two key exchange rates: the sterling/$ rate was the center piece until the 1960s; and the Deutsch Mark/$ rate has been the focal point since. Our problems today are not unlike those of 1931-32 when every country sought to gain employment by competitive devaluation or undervalued currencies. Again in 1971 the U.S. was faced with overvaluation. At that time President Nixon devalued the dollar and imposed an import surcharge. Here is a quote that sounds uncomfortably familiar today:

"As a temporary measure, I am imposing an additional tax of 10 percent on goods imported into the United States . . . It is an action to make certain that American products will not be at a disadvantage because of unfair exchange rates. When the unfair treatment is ended the import tax will end as well . . . The time has come for exchange rates to be set straight and for the major nations to compete as equals. There is no longer any need for the United States to compete with one hand tied behind her back." (Quoted in J. Odell, *U.S. International Monetary Policy*.)

Those who call for a step in the direction of international monetary reform all start from the premise that flexible rates have failed. A strong advocate of that position as C.F. Bergsten, who has argued recently (NY Times, April 21, 1985):

"It is clear that the monetary system is failing in its basic purpose of accurately equating the competitive positions of national economies. Its reform is essential to achieve and maintain a healthy world economy."

These complaints about the behavior of the flexible rate system are misplaced; they command as much persuasion as a drunk driver complaining, after the crash, that cars are simply not safe. The fact is that the extreme divergence of the policy mix in the U.S. and abroad is to be blamed, not the exchange rate system. U.S. growth has been high, above average for a recovery, *despite* record high real interest rates and a high dollar. That suggests that some very peculiar policies were in place. Moreover, there is no reason to single out exchange rate difficulties, neglecting the high real interest rates as a very damaging feature of the recovery. A balanced, open-minded approach will focus on both distortions to balanced growth.

It used to be said that exchange rates fail to function properly when they do not lead to balanced trade or balanced current accounts. That view is no longer fashionable because it is recognized that international borrowing or lending need not be all bad. The new version shifts to "equating underlying competitive positions of national economies", which one assumes means exchange rate movements that do not deviate too much from purchasing power parity levels, whatever the consequences for national unemployent rates. But suppose that the dollar had, indeed, been maintained in line with inflation differentials. Our much stronger external balance would have added yet further to growth and also to inflation. Growth abroad would have been much smaller and unemployment correspondingly higher. But abroad, the unemployment problem is already very serious indeed. In Europe unemployment is now 11.3 percent and rising, *even* with the strong dollar.

Even with the overvalued dollar, Europe feels that real wages are too high to have full employment. With a weaker dollar their unemployment problem would be much worse. The point of all this is that the dollar cannot improve both Europe's employment and our manufacturing problems at the same time. Without a deliberate shift in underlying monetary and fiscal policies, exchange rate fix-ups are simply beggar-thy-neighbor policies that are unlikely to succeed because the rest of the world badly needs remedies for unemployment, even as we hope to improve our manufacturing profitability. If that point is conceded we might as well speak dirctly of the required policy change that will simultaneously cope with dollar overvaluation and overly high real interest rates, rather than pretend that exchange rate fix-ups miraculously solve all inconsistencies of national macroeconomic policies. That would lend a welcome realism to the discussion because it would make clear that we are talking about European and Japanese fiscal expansion and U.S. budget cuts, and about sharply lower real interest rates.

No international monetary system can cope effectively with sharply divergent macroeconomic policies, especially under conditions of international capital mobility. The Bretton Woods system came under pressure in the late 1950s and thoughout the 1960s, because the U.S. policy mix was not acceptable to our major trading partners. To escape from dollar overvaluation under fixed rates the world went to flexible rates, which now are said to have failed. Moving to more rigid rates will not cope with the problem of integrated capital markets and divergent fundamentals. Limiting exchange rate movements, without internationally agreed target zones for budgets and for real interest rates, is simply absurd.

The reason is that there is no instrument available to implement the exchange rate commitment. Policy instruments to affect exchange rates are primarily monetary and fiscal policy. With the right fiscal policy still out of reach monetary policy would have to do whatever is necessary to make the exchange rate stay within bounds. But, of course, few people would be foolish enough to argue that the monetary policy should be geared to defending the exchange rate, *at any price*. In the U.S. conditions of 1984–84 that would have meant monetizing budget deficits and preventing disinflation altogether. It is therefore surprising that as impracticable an alternative as target zones should continue to attract public interest and the support of some policy advisors.

We have already discussed above the merits of changes in monetary and fiscal policies. If such policy changes were made it is not obvious why there would be any further need for exchange rate targets. But if these more basic changes in macro policies were not to occur in the near future, are there alternatives? Target zone supporters might hope to implement their exchange rate objectives either via changes in underlying macroeconomic policies or via foreign exchange market intervention. With unchanged monetary policy, intervention will have to be sterilized. That means the world supply of public debt would be reshuffled between dollar and DM denominations.

The effectiveness of sterilized intervention has not been established and therefore we should not oversell the scope for intervention to achieve orderly exchange rate movements. A significant body of research produced by the Federal Reserve leads to the conclusion that intervention with unchanged monetary and fiscal policies does nothing to exchange rates. Indeed, the effectiveness of intervention would at best be limited to creating outright "disorderly markets" in an effort to depress the exchange rate. That is an effective way to burst a bubble but is neither effective nor, indeed, appropriate in the case of an equilibrium exchange rate that is high because underlying policies call for a high rate. As to the bubble case, the logic that calls for bursting bubbles carries over to bond markets where disorderly markets should be created to bring down overly high longterm rates by pushing up bond prices.

Economics has as yet no definite criteria for establishing whether a particular economy-wide asset price represents a price that optimally allocates resources between alternative uses. We use the presumption that the free market knows best, but have to confess to some uncertainty on this question. But it is equally important not to throw all organized thinking overboard and react to manufacturing problems by a piecemeal fix-up of the exchange rate, as if there were no concern for economy-wide interactions. Anyone who is willing to act on the exchange rate must also be willing to announce views and actions on interest rates and the stock market. They are part of the same economy-wide price system and determine, in conjunction with fiscal policy the level of output, employment and the allocation of resources in the world economy. It is not appropriate to think that one single price—the exchange rate—can be identified as "wrong" and moved around at will without world-wide effects on every other price. If the dollar could be talked or intervened down without changes in monetary and fiscal policy then we would, in all likelihood, have higher interest rates. If is difficult to believe that a lower dollar and a higher interest rate are any better than what we have now.

The best of all worlds would be one where policy makers can draw on international exchange for the gains from trade, but isolate economies from the spill-over effects of macroeconomic policies and disturbances. We would like strong exchange rates for disinflation, but then avoid the import consequences. We would like to draw on capital inflows to hold down interest rates, but would like to avoid running trade deficits or incur foreign debts. For better or worse, there is no way we can run smaller trade deficits, have higher growth and lower interest rates, except by a reversal of the past few year's policy mix here and abroad.

Neither an import surcharge nor capital controls are a substitute for a change in fundamentals.[1] An interest equalization tax to reduce the attractiveness of U.S. assets to foreign holders is the proper response to a bubble or to safe haven capital flight into the dollar, which as a result becomes overvalued. A restoration and increase of the withholding tax on foreign holders of U.S. assets would be altogether appropriate, if only as a way of charging rent on the safe haven. The policy would yield some revenue in the process of taxing foreign asset holders that may otherwise escape taxes altogether. There would be little doubt that the dollar would decline as a result, perhaps precipitously. But the weakening of the dollar would leave us still with the problem of the right policy mix. The weaker dollar would increase (or sustain) growth, but it also would raise interest rates and, thus, merely shift the crowding out to other sectors of the economy. The basic problem that needs attention therefore is to correct the policy mix here and abroad.

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[1] I have criticized the import surcharge idea in an editorial entitled, "The Illusions of Protectionism," in the Los Angeles Times, April 4, 1985.

Appendix 2

THE DOLLAR: HARD OR SOFT LANDING?—BY ROBERT SOLOMON, BROOKINGS INSTITUTION

SUMMARY

We characterize a hard landing not in terms of the speed or magnitude of a dollar depreciation but in terms of whether it causes economic hardship in the form of recession or inflation. We show that the dollar could come down substantially without causing U.S. interest rates to rise steeply. When the U.S. current-account deficit later shrinks in response to the lower dollar, American interest rates will rise unless the budget deficit is reduced correspondingly. But that rise in interest rates need not cause a recession if it merely serves to compress domestic investment at the same pace as the narrowing of the current-account deficit.

INTRODUCTION

Although dollar exchange rates have come down from their peaks of late February, the dollar is not showing persistent weakness. Nevertheless, a substantial depreciation of the dollar remains a distinct possibility.

The modalities of a dollar depreciation and its interaction with other key variables could obviously have significant effects on the world economy. In particular, one hears more and more talk of "hard" and "soft" landings for the dollar.

An op-ed article in the Financial Times for June 6—entitled "Prepare for a Crash Landing" and written by Anatole Kaletsky—starts with this sentence: "A crash-landing of the overvalued dollar, accompanied by a world financial upheaval, becomes more plausible daily." In a book to be published in the autumn by the Institute for International Economics, Stephen Marris will set forth a detailed analysis pointing to a hard landing.

In what follows we attempt to clarify the meaning of hard and soft landings. Our purpose is not to make firm predictions but to examine the possibility that the dollar will adjust down to a sustainable level without creating severe economic or financial hardship. In other words, can a speculative bubble, if that is what we are experiencing, be expected to deflate gently rather than to burst?

MEANING OF "HARD LANDING"

One cannot disagree with Lewis Carroll who has Humpty Dumpty saying: "When I use a word . . . it means just what I choose it to mean—neither more nor less." In this spirit, what is the most useful way to define a "hard landing" and its antonym, a "soft landing?"

We are trying to characterize a depreciation of the dollar relative to the currencies of other industrial countries. It is assumed that such an adjustment is inevitable either because the American current-account deficit cannot continue to be financed or because its economic costs are too great.

Should we reserve the term "hard landing" for a large depreciation? This is the meaning that many observers seem to have in mind by analogy with an airplane; if a plane approaches a runway in a steep rather than a gradual descent, it could shake up the passengers and possibly damage itself.

This analogy is not very helpful. A more useful definition of a "hard landing" is a downward movement of the dollar that, whatever its magnitude and speed, entails economic costs for the United States or other countries or both. Those economic costs could take the form of recession or inflation. Thus a "soft landing" would be a depreciation of the dollar that involved a minimum slowdown, if any, in economic growth and a minimum worsening of inflation.

EXCHANGE-RATE MOVEMENTS, EXPECTATION, AND INTEREST RATES

Here we examine the effect of interest rates of movements in, and expectations about, exchange rates.

If investors were neutral toward risk rather than risk averse (one who is risk averse is unwilling to bet even money on the toss of a coin or on any chance where the odds are fifty-fifty), the so-called open interest parity would always hold. That is, the difference in interest rates on similar securities in two countries would be equal to the expected change in the exchange rate that links their currencies. If the expectation regarding the exchange rate changed, investors would respond by moving funds until the difference in interest rates once again reflected the expected change in the exchange rate.

In a world in which investors are risk averse rather than risk neutral, these tendencies would still exist but the difference in interest rates would not be exactly equal to the expected change in the exchange rate (if it could be measured) since investors would demand a risk premium before moving from one currency to another. Still, *changes* in expectations would tend to be roughly parallel to *changes* in interest-rate differentials.

Broadly, then, a change in exchange-rate expectations will reflect or be reflected in interest-rate differences. Of course, market participants differ in the expectations they hold; interest-rate differentials are related to the central tendency of those expectations.

During the last week in May, the 3-month interbank interest rate in Germany was about 2 percentage points lower than the comparable interest rate in the United States, where both interest rates represent annual rates of return. This implies that investors expected the dollar to fall in terms of D-marks at an annual rate of only 2 percent over the following three months.

Suppose, now, that something happened to alter expectations, so that the typical market participant expected the dollar to depreciate by 10 percent annually. The result would be either a widening of the interest-rate differential to 10 percentage points or an immediate fall of the dollar, fulfilling the expectation. If the dollar fell, in terms of D-marks, by 8 percent overnight, the remaining expected depreciation of 2 percent would be consistent with the *existing* interest-rate differential. U.S. interest rates would not have had to increase.

It is important to note that the dollar can fall in value without necessarily engendering expectations of a further decline. Thus, the dollar depreciated from about 3.45 D-marks in late February to 3.05 D-marks in early June. This is a drop of 11 percent. Yet over the same period the short-term interest differential narrowed by almost one percentage point as interest rates declined in both countries but more in the United States.

One can imagine additional step-wise downward adjustments of the dollar. At each plateau, market participants would not expect a further depreciation. As the dollar went down, step by step, American interest rates would not rise; or, more correctly, they would not *have* to rise in order to be consistent with exchange-rate expectations. Other forces could, however, make for higher interest rates, as is discussed below.

CAPITAL INFLOW, INTEREST RATES, AND DEPRECIATION

Suppose that investors decided, for whatever reason, to reduce the placement of funds in the United States or even to withdraw existing holdings, converting into the currencies of other industrial countries. The result would obviously be a depreciation of the dollar.

Would the net reduction in capital inflow to the United States cause American interest rates to rise?

That would certainly be the initial tendency. It is possible that the Federal Reserve would try to counteract this tendency, but we reserve this subject for later when we look at the price effects of a depreciating dollar.

The logic behind the proposition that interest rates would tend to rise is that the supply of funds would decrease as investors reduced the placement of capital in the United States.

Another view of the capital inflow is that it finances the current-account deficit and this deficit cannot be compressed in a short period of time. How, then, would it be financed if net capital inflow decreased?

One way would be for U.S. interest rates to rise enough to offset the expected further depreciation of the dollar and to provide a positive return to investors. Such a rise in interest rates could be steep and could certainly depress aggregate demand in the United States.

Alternatively, the falloff in capital inflow could cause an immediate large depreciation of the dollar. If the dollar fell fast enough and far enough to engender the expectation that its next move would be up, investors would once again be willing to place funds in the United States, thereby providing the necessary finance for the current-account deficit. In this scenario, American interest rates would not have to rise when the dollar fell.

It is conceivable that this scenario could occur overnight, as it were. It is also possible that it would not happen overnight but, as is discussed above, the dollar could come down in steps. At each pause in the depreciation of the dollar, expectations could be such that capital inflow would resume. In either case, American interest rates would not have to rise.

Depreciation and Crowding-Out

A current-account deficit can be viewed as a way of supplementing a country's domestic saving. In the United States, the combination of gross private investment and the budget deficit exceeds gross saving (personal, corporate, and state and local government). The difference is made up by net capital inflow, which is equal to the current-account deficit.

A depreciation of the dollar would encourage exports of goods and services, discourage imports, and thereby reduce the current-account deficit. This process would take some time to work itself out, and the initial effect would be a widening of the deficit via the so-called J-curve.

In any event, as and when the current-account deficit began to diminish, something else would have to give in the U.S. economy. The alternatives are a cut in the budget deficit, a reduction in gross investment relative to gross saving, or some combination of these.

Ideally, the budget deficit would be reduced at the same pace as the decline in the current-account deficit proceeded. In that happy circumstance, the U.S. economy would not face either excess demand or a crowding out of private investment.

On the other hand, suppose that nothing, or very little, is done to reduce the U.S. budget deficit. As net exports increased (that is, as the current-account deficit fell), the economy would be threatened with excess demand and inflation, unless the process started in a period of recession; in this case the inflation problem would be delayed but would have to be faced eventually.

It is safe to assume that the Federal Reserve would act to prevent excess demand from developing as the current-account deficit diminished. Thus we can rule out a heightened rate of inflation from this source. But the cost would be a rise in interest rates as the Fed restrained the economy.

As interest rates rose, they could conceivably reverse the depreciation of the dollar. That would put an end to the narrowing of the current-account deficit and of the process we are analyzing in this section.

If we assume that the dollar depreciation is not reversed, the advance in interest rates would reduce interest-sensitive expenditures such as housing and business investment. The question is, would the falloff in these investment outlays proceed at the same pace as the narrowing of the current-account deficit? Both effects would show up as a distributed lag. It would be remarkable if they moved in lock-step. Nevertheless, there could be a rough conformity in the pattern of declining investment and declining current-account deficit. If that were so, they would offset each other and aggregate demand could continue to expand at a normal rate. If the decrease in investment and the current-account deficit did not offset each other, interest rates would tend to move so as to bring them into conformity. In the event that the fall of investment led the fall in the external deficit, interest rates would tend to rise less. If the investment decline lagged the decline in the current-account deficit, interest rates would rise more. But these interest-rate movements would be part of the adjustment process and need not depress the economy.

Depreciation and Prices

Assume, once again, that the dollar depreciates because of a reduction in the inflow of capital to the United States. In addition to the effects already discussed, the depreciation would cause the U.S. price level to rise faster than it was rising before the dollar started down. The cost of many imports would go up. This would be reflected in the prices of American products that embody imports and also in the prices of products that compete with imports.

Whether the jump in the price level was a one-time event or led to a higher rate of inflation would depend on the reaction of wages. This is hard to predict. But the moderate behavior of wages in recent years gives cause for optimism.

In earlier parts of this paper, we have considered the alternatives of both a large "overnight" depreciation and a more gradual "step-wise" depreciation of the dollar. Would the reaction of American prices differ in these two scenarios?

In either case, the effect on prices would show up as a distrubuted lag. But, clearly, the price effect would be more concentrated in time in the event of an overnight depreciation. It is possible that wage demands would be stronger in that case, but this is far from a certainty since it might also be more clear that the price rise was a one-time event.

How much prices would react to the depreciation is also hard to predict. It is reasonably certain that exporters to the United States have been enjoying comfortable profit margins as the dollar has appreciated. These profit margins would provide somewhat of a cushion as the dollar went down, thereby lessening the extent to which American prices jump.

But they will jump. And the Federal Reserve will find itself on a narrow path. The Fed's projections must incorporate some faster increase in prices as the dollar depreciates. It is unlikely to alter monetary policy to combat that effect. Yet, it will want to prevent a higher built-in rate of inflation. Furthermore, as is noted above, the Federal Reserve will pursue a tighter policy if the dollar depreciates and begins to reduce the current-account deficit in conditions where the budget deficit is not decreasing. In combatting excess demand, the Fed would also be holding down the cost-push and umbrella effects on prices and wages from a dollar depreciation.

POLICIES ABROAD

The assumed depreciation of the dollar, whatever its speed and magnitude, will lead in time to a smaller American current-account deficit. The counterpart of this balance-of-payments shift—a move to smaller current-account surplus—is bound to appear mainly in the other industrial countries. The developing countries have little scope to bear larger current-account deficits in the near term.

If Japan and the industrial nations of Europe have to adjust to smaller current-account surpluses (these are estimated to aggregate to $48 billion this year for the OECD countries other than the United States) they will experience a slowdown in economic growth unless they adopt policies to expand other components of aggregate demand. Their problem is the mirror image of the U.S. problem as set forth above under *Depreciation and Crowding Out*.

The best policy prescription for the United States is to reduce its budget deficit, thereby providing an offset to the decrease of the current-account deficit and making it unnecessary for interest rates to rise in order to push down domestic investment.

In the case of most European countries and Japan, the best prescription would probably be a fiscal expansion—via cuts in tax rates—to offset the depressive effect of the reduction in current-account surpluses. Even in the absence of a dollar depreciation and changes in current-account positions, a case can be made for fiscal expansion in many industrial countries, as Paul Volcker has stated on a number of occasions. When the dollar depreciates, that case would be much stronger.

Whether or not fiscal policies in Europe and Japan are altered, some of these countries will find it possible to ease their monetary policies when the dollar goes down, since they have tended to maintain higher interest rates in order to dampen the depreciation of their currencies. The decline in interest rates would tend to stimulate domestic investment outlays in those countries, but it cannot be assumed that this would suffice to offset the reduction in current-account surpluses.

In general, one can foresee the possibility that the economies of other industrial countries will become even more sluggish, if governments do not adopt more expansive fiscal policies and if the response to lower interest rates is not strong. But these problems will arise whether the dollar's landing is hard or soft.

Appendix 3

INTERNATIONAL AND DOMESTIC ASPECTS OF MONETARY POLICY—BY HENRY C. WALLICH, MEMBER, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

SUMMARY

1. The exchange rate of the dollar has gained weight as a factor in monetary policy formulation.

2. The dollar now is more important as a regulator of capital inflows than of trade. So long as the budget deficit requires large capital imports, it is not clear whether the short-run interests of the American economy are better served by a strong dollar that helps keep down interest rates or by a lower dollar that would help U.S. exporters and import-competing industries.

3. There is little the Federal Reserve can do about the high dollar without inflationary consequences. Explicit foreign-exchange targeting by the Fed would mean giving up money-supply targets.

4. The dollar nevertheless can serve as an indicator of the stance of monetary policy. A strong dollar implies that monetary policy is firm—but it must be evaluated in context of behavior of monetary aggregates, interest rates and the economy.

5. On the domestic side, the technique of monetary control through borrowed reserves has worked acceptably. The two-week reserve period that accompanied contemporaneous reserve requirements has permitted banks more freedom in reserve management and may have produced a slightly more flexible funds rate. Otherwise, contemporaneous reserve requirements have been a nonevent.

6. Rebasing money-supply targets from 1985 to the mid-point of the range for fourth quarter 1984 would have been the equivalent of slightly higher M1 targets on the actual fourth quarter 1984 base, and undesirable.

7. Using bands in addition to cones does not change targets but permits larger deviations in the early months of the target year. Acceptance of this minor device implies more short-run flexibility in pursuit of money-supply targets.

THE ROLE OF THE DOLLAR

In the course of its long rise, the dollar has increasingly forced its way into monetary policy considerations. The Federal Open Market Committee policy record, published approximately every six weeks, reveals an increase in both the frequency and the degree of detail of references to the dollar. The FOMC's Directive to the Open Market Desk, which up to the end of 1983 referred to "a sustainable pattern of international transactions" as one of the FOMC's objectives, in early 1984 shifted to "an improved pattern of international transactions." This change was made in the recognition that the economic expansion was increasingly being influenced, adversely, by the mounting current-account deficit. On the other hand, progress against inflation has been aided by lower prices abroad, and interest rates have been kept down by a capital inflow. But there is concern about what might happen if the dollar goes down, inflation accelerates, and interest rates rise.

The Federal Reserve, while very alert to the dollar, cannot do much about it without risk of being counterproductive. At a recent hearing before a subcommittee of the House Banking Committee, two former chairmen of the Council of Economic Advisers, Alan Greenspan and Charles Schultze, agreed that the Fed could not do much about the dollar. The matter was in the hands of the budgetary authorities. But though the Fed may be able to do little about the dollar, the dollar can do a great deal to monetary policy and to the American economy.

THE HIGH DOLLAR—GOOD, BAD, OR BOTH?

A quick review of the dynamics of the dollar will make this clear. In simplest terms, the dollar is both inexplicable and unpredictable. Among the explanations for its high level, none is completely compelling by itself. High interest-rate differentials, in nominal or real terms, at the short end of the spectrum or the long, are a plausible reason for the large demand for dollars. Even so, the dollar has not moved closely with these differentials in recent years. Only the broad sweep of interest rates here and abroad is reflected in the dollar's rise.

The profitability of the American economy is another much-cited cause. A look at the data suggests that profitability recently indeed has been stronger than in earlier expansions. But business investment, though good, has not been exceptionally high at least when measured in terms of net depreciation. Stock markets have gone up in the United States, but so have they abroad. An examination of the balance-of-payments data leaves unsettled the extent to which enhanced corporate profitability has fueled the U.S. capital inflow. In 1983, the inflow represented primarily bank funds, but last year most of the funds entering the United States came via private nonbank channels. However, the data is not refined enough to shed much light on the comparative explanatory power of the profitability hypothesis or the safe-haven theory. Even the apparent evidence that the bulk of the flows was predominantly controlled by U.S. residents and that the inflow of capital was mostly a cessation of U.S. lending—rather than an increased foreign flow—does not stand up once various appropriate adjustments are made to the data. No doubt all factors cited above played a role in stimulating the inflow. But I believe that interest rates probably have been the principal driving or pulling force.

EFFECTS OF THE HIGH DOLLAR

If the reasons are not quite clear, the effects are entirely discernible. Unfortunately, the strong dollar has both good and bad effects. To some extent these depend on accompanying circumstances outside the Fed's control, especially the budget deficit. The long rise of the dollar has helped us against inflation. A continued high dollar would nail down that advantage. The high dollar has also promoted enormous capital imports, by generating a current-account deficit (the flip side of capital imports). These have helped to finance the budget deficit directly and even more indirectly. They have kept interest rates from rising to the level they might have reached had the budget deficit remained bottled up within our economy.

But the high dollar also has severe costs. Many of our export industries, as well as farmers, are being pushed to the wall. Protectionist pressures are rising, but protection, if it could not be resisted, would in any event not help the exporter. By trying to shield import-competing industries, it would reduce the capital inflow, raise interest rates, and probably drive up the dollar some more. The high dollar has made us a debtor nation. If large current-account deficits continue, that debt will become very large. The interest on the increment increases the deficit further and makes it more difficult in the future to earn our way by exports, even if only partially, without a substantial decline in the dollar. The longer the high dollar continues, the larger the ultimate adjustment.

But a decline of the dollar now or later, in the absence of budgetary correction, would have high costs, too. Inflation would accelerate, although hardly to levels experienced in the past. A rule of thumb says that a 10 percent drop in the dollar would raise the rate of inflation by somewhat less than one percent per year. But once inflation gets going agian, nobody nows how far it will go. A lower dollar would help exporters, import-competing industries, and reduce the external deficit. But without budget relief, diminishing capital imports would drive up interest rates. Private investment, rather than the budget deficit, would then probably sufffer the unavoidable crowding out. A recession would threaten.

OVERVALUED?

In short, the optimum value of the dollar at any moment is ambivalent. It is useless, therefore, to argue whether or not the dollar is overvalued or not. Even if we leave aside the tautology that the dollar rate at any moment balances the exchange market, the question is whether the current account or the capital account is to have priority. In my view, priority over time clearly goes to the current account. Prolonged imbalance and accumulation of foreign debt in exess of income growth creates an unsustainable situation for the dollar. In practice, the international markets will decide which is to have priority. Absent budgetary action, the mattter is not in our hands.

A good solution, in my view, would be a major reduction in the budget deficit likly to produce a significant decline in interest rates and a resultant drop in the dollar. Evidence that the United States is getting its house in order should keep the dollar's decline orderly, although no one can be sure. One cannot even be sure that evidence of budgetary discipline may not attract foreign investors, despite lower interest rates, and so keep the dollar from falling or even drive it up. But in the end, the saturation of the world's portfolios with dollars seems likely to curb investors' eagerness.

How far might the dollar have to fall to get the U.S. current account back to a reasonable posture? By no means all of the current-account deficit is the result of the high dollar. Some part is due to the weakness of economies abroad, which has held down their imports. Some part is due also to the special weakness of some particular customers of the United States, such as Latin America. If the dollar had not risen, we still would now have a sizable current-account deficit for these other reasons. One might hypothesize that the dollar could move to a level at which that part of the external deficit attributable to it, probably something like two-thirds, would disappear, with the usual lag. That might be an amount of perhaps $75 billion. A rule of thumb says that a 10 percent drop in the dollar improves the current account, with a lag, by $20–30 billion. That calculation would suggest that to reach what one might call a cyclically adjusted level, i.e., assuming recovery abroad, the dollar would not have to fall to the lows which it reached in the late 1970's. But, of course, recovery abroad may be slow, the markets may overshoot, and all guesses are just that.

INTERVENTION AND EXCHANGE-RATE TARGETING

What can the Fed do, given the dominant role in the picture of budget deficit and market sentiment? Since at this point somebody always mentions exchange-market intervention, let me say a word about it.

Intervention is not an effective means of lastingly influencing the dollar. It can at best deal with day-to-day fluctuations. That at least is the case if we are speaking of so-called sterilized intervention, in which the effects on bank reserves and money supply are immediately eliminated. In the United States, given the operating procedures of the Desk, that sterilization is routine. Indeed, the reserve impact of the kind of intervention operations that we have had on a few occasions, in the tens and at most in the hundreds of millions, are small compared to market factors like changes in the Treasury balance, currency and float, which the Desk routinely offsets.

The United States at times has intervened heavily, for instance in 1978, when the dollar was very weak. At that time, because the United States had very little international reserves, we had to borrow through Carter bonds and raise money by other devices. Since no one can be sure that similar exchange-market conditions may not recur, one would think that today, with foreign exchange relatively cheap, would be a good time to lay by a war chest of that kind. Admittedly, such advice would have sounded plausible even when the dollar was at DM 2.50. There would have been substantial losses on reserves accumulated at such rates. Other countries, of course, have also had losses on reserves from time to time, although currently they have profits. A cumulation of a reserve would be a justification for intervention that would not rest solely on the exchange-rate effect. Also, if other countries are very eager to have the United States intervene, while we are indifferent, we might be able to obtain concessions that would be of value to us.

As far as the immediate benefits of intervention for the United States are concerned, they pretty much follow the old ditty of Nelly and the cow—the cow kicked Nelly in the belly in the barn, didn't do her much good, didn't do her much harm. In fact, if countries want to engage in exchange-market intervention, they can do so all by themselves. There is no urgent need to coordinate; in the exchange markets it takes only one to tango. But if the exercise brings other benefits, I can see no reason why we should not rise above principle and cooperate.

Finally, if a country is determined to have a particular exchange rate, monetary policy can do it by unsterilized intervention. That simply would mean to allow the money supply to expand or contract through purchases of foreign exchange that would put and keep the rate at the desired level, accompanied if necessary by open-market operations in government securities if foreign-exchange reserves are inadequate, and accepting the consequences for domestic prices and output. Some countries for which the exchange rate is very important in effect do this. That means, however, to risk losing control over money supply and price level. For a country whose monetary policy is based on money-supply targeting, like the United States, exchange-rate targeting would not be possible without a major change in monetary policy and its objectives.

Money-supply targeting, in fact, is the form of monetary policy fartherest away from exchange-rate targeting. Interest-rate targeting, which means targeting on a price other than the exchange rate, falls somewhere in between. Exchange-rate targeting, by all available policies, was indeed the rule under the old fixed-exchange-rate system of Bretton Woods days. Monetary policy of major countries was indeed aimed at maintaining a fixed exchange rate. That is the basic reason why no country at that time pursued a money-supply target, while many employed shifting interest-rate targets as a means to maintaining a fixed exchange rate.

THE FOMC AND THE DOLLAR

I have engaged in this perhaps excessively theoretical disquisition in order to make clear why, even though in principle central banks "can" determine the exchange rate, for the Federal Reserve it is not practical to do so. More concretely, an effort today by the Fed to bring down the dollar would probably reignite inflation. Interest rates would have to be brought down which, if it can be done at all, would require acceleration of money growth. That does not mean, however, that the Fed should or can be oblivious of the dollar. All monetary-policy actions in some way touch upon or are touched upon by the dollar. As I said before, there is a delicate balance between the pros and cons of actions tending to influence the dollar in one direction or another. The fundamental view of the FOMC probably is best expressed by the reference in the Directive to the Desk to "contribute to an improved pattern of international transactions." To me, that means a reduction in the current-account deficit because I do not consider the deficit as sustainable. Someone else conceivably might interpret it as calling for a larger volume of capital imports. From the language of successive policy records over the last two years or more, it is evident that the Committee's concern with the dollar has predominantly been one of caution rather than of activism. The dollar, in other words, is not like inflation, for which in present circumstances the only desirable direction is down. It is more like economic growth, which one likes to see strong, but which can be too strong or too weak. Some typical references in the policy record, taken more or less at random from recent meetings, are to "the demand for domestically produced business equipment * * * inhibited * * * by the level of the dollar" (March 1985), "the high level of the dollar * * * reflected in pressures on some sectors of the economy" (February 1985), and "the dollar * * * inhibiting demand for U.S. exports" (November 1984). Comments such as these suggest a preference for a lower dollar.

On the other side, the policy record shows concern over a weaker dollar, such as "inflationary pressures would be greater * * * if the value of the dollar were to decline substantially" (July 1984), and "diminution [of capital inflows] . . . could have highly unsettling effects on domestic credit markets" (January 1984). Volatility of the dollar as such was also a cause of worry. "Concern was expressed about sensitive conditions in * * * foreign-exchange markets" (March 1985), "the [economic] outlook * * * remained subject to substantial uncertainties * * * because of . . . the strength of the dollar" (August 1984). With respect to monetary-policy decisions, statements such as "adjustments [in the degree of reserve restraint] * * * needed to take account of * * * the dollar" (March 1985), "support [for] * * * maintaining the reserve conditions of recent weeks * * * was reinforced by the current strength of the dollar" (February 1985), "evaluation of the desirability for firming [of reserve conditions] should take account of the strength of the dollar" (February 1985), "considerations in favor of lesser restraint were reinforced by * * * the strength of the dollar" (December 1984). The operative stance of the directive typically has been to treat the dollar as a constraining or mitigating factor in both directions—"should growth in M1 appear to be [too rapid] * * * modest increases in reserve pressures would be sought, particularly if * * * exchange-market pressures diminish [i.e., if the dollar is not rising much]. Lesser restraint on reserve positions would be acceptable . . . particularly in the context of * * * continued strength of the dollar" (February 1985). The short-term tendency to avoid rocking the dollar boat must be viewed in the broader context, of course, of the objective of contributing "to an improved pattern of international transactions."

EXCHANGE RATE AS POLICY GUIDE

The somewhat stylized formulations of the policy record and particularly of the directive can be interpreted, at least in the thinking of some FOMC members, as reflecting the use of the foreign-exchange rate as a guide to the evaluation of monetary policy. The high and rising exchange rate can be viewed as an indication that monetary policy is firm and getting firmer. There is an analogy to the interest rate, which, of course, the market, as well as the policymaker, regards as an indicator of the stance of monetary policy, although under a regime of money-supply targeting perhaps only as a secondary indicator. A parallel exists between exchange rates and interest rates in that both operate directly upon economic activity, a rising interest rate by restraining investment, a rising exchange rate by restraining exports and increasing import competition.

For either the interest rate or the exchange rate to be used as an indicator of monetary policy requires, of course, a *ceteris paribus* condition, i.e., that fiscal policy, private demands for goods and services, and foreign trade are not shifting and that the movement of the interest rate and exchange rate, therefore, is exogenous, instead of endogenous to these other factors. In the case of the use of the dollar as an indicator of the firmness of monetary policy, this problem is made more complex by changes in policies and in economic conditions abroad. The rising dollar may merely say that U.S. monetary policy is firming relative to policies and conditions abroad, but not necessarily with respect to what would be a desirable policy at home.

Under a regime of money-supply targeting, the indications thrown off by the dollar may well be at odds with those thrown off by the monetary aggregates, although hardly in the long run. For instance, during the rapid monetary expansion from mid-1982 through mid-1983, the dollar with some interruptions continued to rise. During the period of very slow monetary expansion in the latter part of 1984, the dollar first rose through mid-October but then declined sharply through early November. By the verdict of the dollar, monetary policy, broadly speaking, has been on a firm course for several years. By the test of money growth, which has shown substantial variation both between and within years, monetary policy on balance has not seemed overly restrictive. By the test of interest rates in nominal terms, policy has eased, since these have come down, but by the test of real interest rates probably much less so if at all. The verdict on the stance of monetary policy may have to be that a mixed bag of indicators is hard to interpret. Perhaps one useful function for the dollar rate as a policy indicator might be to help distinguish movements in real from nominal interest rates. It should be clear in any event that using the exchange rate as an indicator of the firmness of monetary policy does not imply targeting on it.

ACTION AT EXTREME POINTS

The role of the dollar in monetary policy is not always so difficult to interpret as during the last few years. There have been episodes when the dollar became decisive. Most clearly this has been the case when the dollar was very weak, such as in late 1978 and 1979. In November 1978, the discount rate was raised by the then almost unprecedented amount of one percent, and reserve requirements—somewhat of a cosmetic—were also raised. These were the actions that underpinned the coordinated intervention operations at that time. In October 1979, the Federal Reserve moved to a much more rigorous technique of money-supply control, using the reserve mechanism, which quickly led to higher interest rates and in due course to a strengthening of the dollar. In these cases, monetary policy had to deal with what was perceived as a crisis in the exchange market. The exchange rate itself was saying that monetary policy had been too easy.

There is no parallel to this in times of a very strong dollar. While the rapidly rising dollar may, in some other countries, have been perceived as a crisis in their exchange markets, it was hardly in ours. Instead, the emphasis has been on the effect of the strong dollar on trade, inflation, interest rates, and on the United States becoming a debtor country. These concerns have never led to crisis-type action. It is reassuring to be able to say so, because crisis-type monetary action to keep the dollar from rising could be very damaging. By analogy to the sharp tightening that was undertaken when the dollar was low, monetary action when the dollar is very strong would have to take the form of energetic easing. This could have consequences far beyond the exchange markets. Financial markets would be disrupted, the money-supply targets would be violated, an inflationary spurt possibly set in motion, the credibility of the central bank's anti-inflationary stance put in question. Subsequent correction of these policies would bring new disturbances, would probably not fully undo the bad effects, and perhaps cause the dollar to go back up again. The different reaction of monetary policy to a weak and a strong dollar seems well founded.

THE INGREDIENTS OF POLICY AND THEIR WEIGHTS

This leaves the present high dollar as one of many ingredients entering the monetary-policy decision. Growth, unemployment, inflation are the principal elements. Today, the fragility of financial markets, the situation of developing countries, the farm sector, the pressures on financial institutions all have gained in weight. But each FOMC member is likely to weigh these factors differently. The dilemma is one familiar to economic policy-makers: how to hit several targets with only one instrument. The job is made no easier by the fact that some of the targets conflict

This decision process is capable of further refinement. The weights given to particular objectives and causal factors may vary with the degree to which an objective is achieved or underachieved. Adequately achieved objectives may cease to carry much weight at least over short time periods. Seriously underachieved objectives may be given an overriding weight. Lines may be drawn mentally beyond which one will not accept some adverse development. Objectives naturally divide into more long-term and more short-term goals. How far to sacrifice the long run to the short run, and vice versa, is not an easy decision, depending on a person's time preference. "In the long run we are all dead," but also "if you want time to pass quickly, just sign a 90-day note."

Maintaining one's objectivity in this process is important. There is a temptation to reach for some particular argument because it suits one's broader objective, be it to ease or to tighten. The plight of the developing countries may become unaccustomedly vivid at a moment when for other reasons a policymaker would like to see lower interest rates. Strong growth forecasts can become a pretext for monetary tightening desired mainly to curb inflation. For Reserve Bank presidents on the FOMC, the weighting of conditions in their Districts as against national conditions may become a problem.

As these difficult choices become visible in the policy record, an important impression is the tendency toward risk aversion. Monetary policymakers are always choosing among and trying to guard against alternative evils. The status quo, to be sure, is not always ideal. But deliberate deviations from it tend to be approached with great caution. I believe that this is a very valuable characteristic of the FOMC. It protects against overreaction to temporary problems. It protects also against the ever-present temptation to fine tune. It does not protect against all mistakes, but in the field of economic policy, where knowledge is at best partial and uncertain, it is better to do too little than too much.

Appendix 4

THE EXCHANGE RATE SYSTEM: "IF IT AIN'T BROKE, DON'T FIX IT"—BY JACOB A. FRENKEL,* UNIVERSITY OF CHICAGO

The study of the historical record of the international monetary system is motivated by the assertion tht "those who do not remember the past are condemned to repeat it." Unfortunately, when applying this dictum to the study of institutions and societies one may frequently observe that "the past is not what it used to be." Furthermore, and in contrast with many of the experimental sciences, when forecasts of the impact of institutional and legal systems on the behavior of individuals and societies are made on the basis of experience, one may frequently observe that also "the future is not what it used to be." This inherent difference between social and physical sciences reflects the impact of experience and memories on behavior. It renders the study of past records somewhat less productive than one would have liked since once we go through an experience (as individuals or as a society) we cannot ignore it any more and start all over again. For such cases Lewis Carroll's phrase "all the King's horses and all the King's men couldn't put Humpty Dumpty together again" is clearly applicable. Therefore, I believe that the restoration of the gold-dollar system à la Bretton Woods is out of the question. In this paper I deal with (i) the characteristics of the present system of flexible exchange rates, (ii) the proposed restoration of exchange rate rules, (iii) the question of who should join the target zones and (iv) the question of reform.

THE CHARACTERISTICS OF FLEXIBLE EXCHANGE RATES

The presumption that the flexible exchange rate system failed is typically based on the observations that during the past decade exchange rates have been highly volatile, that changes in exchange rates have been unpredictable and have not been closely linked to differentials between national inflation rates. Indeed, charts portraying changes in bilateral exchange rates among the major currencies resemble an electrocardiogram of a patient who has just suffered a heart attack. Furthermore, if data from forward markets for foreign exchange provide measures of the market's prediction of future changes in exchange rates, then a comparison between actual and predicted changes reveals that most of the changes in exchange rates have been unpredicted. The forward market has accounted for only about 5 percent of the actual variability of exchange rates. Since these changes in exchange rates have not reflected exactly inflationary differentials, they have resulted in large changes in *real* exchange rates.

Granting these facts, my main point is that they should not have come as a surprise but rather that they are intrinsic characteristics of flexible exchange rate regimes. Events in the foreign exchange markets, as in other asset markets, are frequently dominated by changes in information. It follows that periods that are dominated by "news" are likely to be periods during which exchange rates, which are highly sensitive to expectations concerning the future course of events, exhibit large fluctuations. Since by definition the "news" cannot be predicted on the basis of past information, it is evident that, by and large, fluctuations in exchange rates are unpredictable. Further, since the prices of goods comprising the aggregate price index are less sensitive to expectations, it follows that during periods dominated by news which alter expectations, exchange rate developments will in general not mirror the course of inflationary differentials. Once we adopt a flexible exchange rate regime, we should expect to get these characteristics, as it were, these come with the territory.

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*This is an adaption of remarks made at a conference on the International Monetary System sponsored by the Federal Reserve Bank of Boston at Bretton Woods (Forty Years After) in May 1984. The full text is included in the proceedings of that conference (Conference Series No. 28).

SHOULD THEY BE FIXED?

The volatility and unpredictability of exchange rates have stimulated many plans for the restoration of some form of "orderly" conduct for them. A popular intervention rule has been the PPP rule (Purchasing Power Parity rule) by which exchange rates adjust so as to exactly match inflationary differentials.

There are, however, at least five difficulties with a PPP rule. First, there are intrinsic differences between the characteristics of exchange rates and the prices of national outputs. These differences, which result from the much stronger dependence of exchange rates (and other asset prices) on expectations, suggest a more relevant yardstick; exchange rate volatility should be assessed by comparison with variability in the prices of other assets like securities rather than variability in the prices of national outputs. The evidence shows that the variability of exchange rates has been about half that of the stock market indices. Of course, this does not mean that the volatility of either exchange rates or stock market indices has been acceptable, but rather that exchange rate volatility cannot be condemned as excessive by pointing to the fact that exchange rates have moved more than national output price levels.

Second, the prices of national outputs do not adjust fully to shocks in the short run, and thus intervention in the foreign exchange market to ensure purchasing power parity would be a mistake. When commodity prices are slow to adjust to current and expected economic conditions, it may be desirable to allow for "excessive" adjustment in some other prices.

Third, continuous changes in real economic conditions require adjustment in the relative prices of different national outputs. Under these circumstances, what seem to be divergences from purchasing power parities may really reflect equilibrating changes.

Fourth, if there is short-run stickiness of domestic goods prices in terms of national moneys, then rapid exchange rate adjustments, which are capable of changing the relative prices of different national outputs, are a desirable response to changing real economic conditions. An intervention rule that links changes in exchange rates rigidly to changes in domestic and foreign prices in accord with purchasing power parity ignores the occasional need for equilibrating changes in relative prices.

Finally, there are the difficulties of determining the appropriate base period (one when exchange rates were in "equilibrium") and the appropriate price indexes (traded goods prices included in wholesale price indexes reflect the echange rate fairly quickly).

Thus, while it might be tempting to "solve" the problem of divergences from PPP by adopting a rigid PPP rule, I believe this to be a mistaken policy course. The key point to realize is that the volatility of exchange rates is not the likely source of the difficulties but rather a *manifestation* of the prevailing package of macroeconomic policies. Fixing or manipulating the rates without introducing a significant change into the conduct of policies may not improve matters at all. It may amount to breaking the thermometer of a patient suffering from high fever instead of providing him with proper medication. The absence of the thermometer will only confuse matters and will reduce the information essential for policymaking. If volatile events and macropolicies are not allowed to be reflected in the foreign exchange market, they are likely to be transferred to and reflected in other markets (such as labor markets) where they cannot be dealt with in as efficient a manner.

The preceding argument ignored, however, one of the important characteristics of the gold-dollar system—the imposition of discipline. Accordingly, it could be argued that the obligation to peg the rate or to follow a predetermined intervention rule would alter fundamentally the conduct of policy by introducing discipline. Experience seems to suggest, however, that national governments are unlikely to adjust the conduct of domestic policies so as to be disciplined by the exchange rate regime. Rather, it is more reasonable to assume that the exchange rate regime is more likely to adjust to whatever discipline national governments choose to have. It may be noted in passing that this is indeed one of the more potent arguments against the restoration of the gold standard. If governments were willing to follow policies consistent with the maintenance of a gold standard, then the gold standard itself would not be necessary; if however, governments are not willing to follow such policies, then the introduction of the gold standard *per se* will not restore stability since, before long, the standard will have to be abandoned.

One of the intriguing puzzles concerning the choice among alternative exchange rate regimes is the remaining wide division of opinions about the best choice. It seems that over the years neither the evolution of events nor the developments of economic theory have succeeded in narrowing the gap between extreme views and in bringing about a convergence of opinions in both academic and policy circles. As a matter of fact, proposals for target zones have been the subject of considerable discussions and analysis and yet many disagreements remain. My interpretation of the lack of convergence is that the participants in the debate have not shared the presumption concerning the relevant alternative to the system which they promote. Thus, extreme promoters of fixed rates believe that the relevant choice is between a "good fix" and a "bad flex;" on the other hand extreme promoters of flexible rates believe that the relevant choice is between "bad fix" and a "good flex." As is obvious, if these are the alternative choices the outcomes are self-evident—for who would not prefer a "good fix" over a "bad flex?" And, by the same token, who would not prefer a "good flex" over a "bad fix?" In reality, however, the choices are much more complex and much less trivial since they may involve comparisons between a "good fix" and a "good flex" or, even more frequently, between a "bad fix" and a "bad flex." When these are the choices, one may expect lack of unanimity. Reasonable people may also differ in their assessments of which "good" system is more likely to gravitate towards its "bad" counterpart. Furthermore, the likelihood that a given "good" system would deteriorate and be transformed into its "bad" counterpart depends on the circumstances and, therefore, it is not unreasonable that some economies would be wise to choose greater fixity of rates while some other economies would be equally wise to choose greater flexibility.

WHO SHOULD JOIN THE TARGET ZONES AND ARE THE ZONES SUSTAINABLE?

One of difficulties in implementing target zones schemes concerns the criteria for the choice of membership. The literature on optimal currency areas highlights several criteria according to which prospective members should be chosen. These criteria include (i) the degree of openness of the economy, (ii) the size of the economy, (iii) the degree of commodity diversification, (iv) the degree of inflation rates among prospective members, (v) the degree of capital mobility, (vi) the degree of other prevailing forms of integration (like custom unions), (vii) the degree of similarities of tax structures and other fiscal characteristics, and (viii) the degree of similarities of external and domestic monetary and real shocks. A central question is how do the various proposals for members of target zones measure up to this set of characteristics.

Suppose the target zones are established. Is it likely that the member countries will be willing to adjust their prevailing package of macroeconomic policies so as to conform with the rules of game? Until recently intervention in the foreign exchange market was believed to be effective even if its monetary consequences were sterilized. Thus, a commitment to an exchange rate arrangement did not need to imply a drastic obligation concerning the conduct of monetary policy. Recent evidence (from the Federal Reserve Intervention Studies) raises significant doubts on this presumption. The evidence suggests that the exchange rate effects of sterilized intervention are much weaker and much less reliable than the corresponding results of nonsterilized intervention. In view of these findings it is relevant to ask whether it is realitic to presume that these countries are likely to harmonize their monetary policies. Put differently, even if such harmonization was desirable from the viewpoint of the world, is it likely to be adopted? In dealing with this question it is instructive to recall John Stuart Mill's analysis in his *Principles of Political Economy* more than a century ago. There, he concluded regretfully that:

> So much barbarism, however, still remains in the transactions of the most civilized nations, that almost all independent countries choose to assert their nationality by having, to their own inconvenience and that of their neighbors, a peculiar currency of their own.

In predicting the future course of events, Mill believed that eventually the international monetary system would evolve into a unified currency area, a process that would be brought about by, what he termed, "the progress of political improvement."

Mill's prediction has been clearly refuted by the actual trend of events. This outcome may be regrettable, but it is clearly typical of government policies. As a general rule, governments tend to discount the future heavily, since their time horizon is relatively short. Consequently, faced with a conflict between internal and external targets, elected officials (who wish to be reelected) will typically sacrifice external obligations to domestic goals by renouncing previous commitments to the international rules of the game.

Is it likely that the current political realities will undergo a significant change in the near future? I believe not. Even though it is usually agreed that the international monetary system faces a fundamental conflict and that it is in the self-interest of all countries viewed as an *aggregate* to preserve a viable international monetary system, it is also clear that each and every *individual* country has the incentive to minimize the weight given to international considerations in the design of domestic policies. Unfortunately, Adam Smith's "invisible hand" cannot be relied upon to bring individual behavior in line with the global optimum since the world economy is not composed of atomistic units but rather of oligopolies. In such a world the "invisible hand" yields to the "visible fist" and the "free market" solution maybe suboptimal from the world's society viewpoint. A repetitive breakdown of rules could be very costly from the global viewpoint. Therefore, it is extremely important that the monetary system does not depend in critical ways on harmonized policies, since such harmonization may not be sustainable.

Should We Reform or "If It Ain't Broke Don't Fix It"

A central feature of any operational monetary system must be a formal resolution of the so-called (n-1) problem. We have n currencies and only n-1 independent exchange rates. We thus have one degree of freedom and its disposal must be explicitly specified. It takes two to tango and it takes one for intervention. The original Bretton Woods system allocated the degree of freedom to the United States which obligated itself to peg the price of gold at $35 an ounce; the other n-1 countries then committed themselves to peg their currency to the U.S. dollar. A design of the international monetary system is not complete unless it provides a resolution of this (n-1) problem. Therefore, it is essential to ask how do the various proposals including those for target zones deal with the extra degree of freedom?

In contrast with fixed parities, the target zones are moving. As they move how do we escape from the inherent difficulty of having the private sector speculate against governments? In the absence of an anchor what ensures credibility? How exactly are conflicts being resolved? These are critical questions that need precise resolution prior to implementation. I believe that the central difficulties with the current regime do *not* rest with the exchange rate policies but rather with the overall mix of the unsustainable macroeconomic policies. It is unlikely, therefore, that the introduction of exchange rate targets can do any good unless they are accompanied by drastic changes in the way in which macropolicies are being designed. Placing excessive weight on the role of exchange rates may divert attention from the more central role that global macroeconomic policies play in the interdependent world economy.

A reform of the international monetary system should be viewed as a constitutional change that occurs once in a lifetime. It ought to be viewed as the "step of last resort." It ought to be thought of as the last bullet which should be used properly and which, once being fired, had better not miss. The success of a new monetary arrangement depends on the adoption of a consistent set of policy tools, and on a reasonable understanding of the implications of each course of action. It might be very costly to experiment with a new system just to learn how it works. In these matters the cost of delaying the adoption of a new international monetary arrangement until its full implications are understood is likely to be small relative to the cost of a premature implementation. The various proposals for reform of the present international monetary system have many attractions. But since they are novel, prudence is clearly called for. More discussions and critical evaluations can be highly desirable. In view of this it may be a good place to conclude with a quote from John Maynard Keynes' remarks in his closing speech at the original Bretton Woods Conference 40 years ago. Speaking on the desirability of critical evaluations of the proposed system Keynes said:

> I am greatly encouraged, I confess, by the critical, skeptical and even carping spirit in which our proceedings have been watched and welcomed in the outside world. How much better that our projects should *begin* in disillusion than that they should *end* in it.

Appendix 5

THE CASE FOR TARGET ZONES—BY JOHN WILLIAMSON, INSTITUTE FOR INTERNATIONAL ECONOMICS

The case for a system of target zones was developed at some length in my monograph "The Exchange Rate System," originally published in September 1983. A revised edition appeared in June 1985, and contained a post script that aimed (a) to update the calculations of fundamental equilibrium exchange rates (FEERs) and (b) to reply to criticisms of the case for target zones.

My updated estimates for misalignment are shown below:

REVISED ESTIMATES OF MISALIGNMENTS, 1984

	Estimated REER[a] (current FEER[b] = *100*)	Fundamental equilibrium rate against US dollar
US dollar	137	n.a.
Japanese yen	89	¥198
Deutschemark	87	DM 2.04
French franc	92	FF 6.51
Pound sterling	107	$1.52
Other industrial country currencies	99	[c] 32

[a] Real effective exchange rate.

[b] Fundamental equilibrium exchange rate.

[c] Unweighted average percentage appreciation against US dollar.

The figure of 137 for the dollar in the first column shows, for example, that according to my estimate the dollar was on average 37 percent overvalued in the fourth quarter of 1984, relative to the FEER, which would be expected to produce a sustainable basic balance in the long run. The final column translates the misalignments to estimates of FEERs against the U.S. dollar.

These estimates indicate that misalignments, especially of the dollar, became even more pronounced during the 18 months after publication of the first edition of this study than they had been before its publication. According to my calculations, the peak overvaluation of the dollar in late February and early March 1985 was more than 40 percent, about as great as the peak overvaluation of sterling in late 1980 and about double the estimated overvaluation of the dollar which brought the collapse of the Bretton Woods system of fixed parities in the early 1970s. And my estimates are near the conservative end of the range reviewed in the first half of the post script. The remainder of this article contains the second half of the post script, my reply to critics of the target zone approach.

Most of the consequences that could be expected from such a massive overvaluation have indeed materialized. In particular, the US current account has gone into colossal deficit, which will make the United States the world's biggest net debtor by the end of 1985 and could take the debt/export ratio late in this decade to levels that usually trigger a debt crisis. With regard to deindustrialization, however, the United States has so far suffered less than did British manufacturing industry in 1980–81 (which is today perhaps 10 percent smaller than it would otherwise have been as a continuing legacy of the sterling overvaluation). The reason is that large parts of American industry have been able to replace production for the home and export markets lost to foreigners with defense production: the sectors where this substitution was not feasible (notably agriculture) have indeed been hit hard, as political pressures for protection or other relief demonstrate, but these sectors are comparatively few.

The longer the deficit persists, the greater the ultimate depreciation of the dollar will need to be, to service the foreign debt the United States is incurring (and greater still if the debt has to be repaid). At that time, the United States will bear a different subset of the costs discussed earlier: austerity, adjustment costs to reverse some of the changes taking place today, and inflationary pressure. Subsequent events have done nothing to dictate a revision of my appraisal that these costs of misalignments can be extremely onerous.

Despite this, the official world has remained hostile to proposals for active exchange rate management. For example, on March 15, 1985, the US Treasury sent a report to Congress arguing that a target zone approach to exchange rate management was unnecessary because the "key to stable exchange rates is stable policies and policy expectations and more convergent economic performance in the major industrial countries" (US Treasury 1985, p. 13). Ironically, the 1985 *World Economic Outlook* published a month later took considerable satisfaction in the widespread adoption of what the IMF considers to be stable policies,[1] as well as the convergence of growth rates (p. 18) and inflation performance (p. 29). Yet both volatility and misalignments have almost certainly been greater than ever before in the first six months of 1985: indeed, in the two weeks after the Treasury report was sent to Congress, the dollar fell by over 8 percent against the European currency unit (ECU). According to press reports, the trigger for the dollar's decline was a run on privately insured savings and loan associations in Ohio.

The fact is that the key to stable exchange rates is policies that treat exchange rate stability as an important objective, not policies that remain unchanged when the market environment (including market psychology) changes. It is just not true, as the example of the local difficulties in Ohio showed once again, that the economic environment and market psychology will remain obligingly stable provided that economic policies are in some sense stable. There are after all numerous different senses in which polices could be stable, and no one would expect exchange rates to remain stable in some of those cases (for example, with constant nominal interest rates). In other cases, as with constant cyclically adjusted fiscal deficits and constant monetary growth, one might expect exchange rates to remain stable if shocks never originated from the private sector; but they do, witness Ohio. If one really considers stable exchange rates important, one needs policies whose predictability resides in their response to the behavior of exchange rates. That is what a target zone approach is intended to provide, though without the rigidity of a fixed band.

Some (but not all) critics of a target zone approach, including the US Treasury, seem to be under the impression that a target zone would be just another name for a wide band.[2] There are in fact two other differences between a wide band and a target zone besides the width of the zone:

A target zone would be defined around a *real* exchange rate, thus preventing differential inflation alone from creating a need for adjustment of the target.

A target zone would have soft margins, implying that a country's obligation would be to adjust policies so as to discourage a rate moving outside the zone or tend to push a rate outside the zone back toward it, not that it would be *obliged* to prevent the rate from straying outside the zone.

The last point leaves the door open for countries to give a strong weight to domestic objectives where these conflict with the medium-term norm for the exchange rate. The experience of the European Monetary System (which operates a band system) might make one wonder whether that much flexibility is necessary: the members have kept their exchange rates in line and have avoided major misalignments without the need for an conspicuous sacrifice of domestic objectives.[3] But the target zone approach is an attempt to introduce an element of concern for external factors into domestic policy making without any risk of making the external element dominant, motivated by the political judgment that this is the most internationalist solution that several of the major powers might be prepared to contemplate in the foreseeable future.

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[1] "Governments for the most part have resisted pressures to resort to short-run stimulative policies and have opted instead to pursue steady growth with price stability, an approach that offers better prospects for sustained employment growth in the longer run." (IMF 1985, p. 28)

[2] "Although the exchange rate band under a target zone system would be wider than under a fixed rate system, the principle is the same. Countries would still arbitrarily [*sic*] determine a 'correct' exchange rate or range of acceptable rates, which they then endeavor to enforce." (US Treasury 1985, p. 12)

[3] The possible exception concerns the French austerity moves of June 1982 and March 1983, which were explicitly motivated by the decision to remain in EMS. However, the statement in the text remains justifiable if one takes the view that such measures would have been inevitable before long in any event, and the procrastination would merely have increased the ultimate cost of adjustment.

Could a target zone approach have helped to curb misalignments, given the limited nature of the obligations that it would have implied? To answer that question, one has to return to the issue of whether misalignments are caused by market inefficiency or by uncoordinated macroeconomic policies. If it were solely the latter, a target zone system would have been helpful only to the extent that it might have focused the minds of policymakers on the long-run disadvantages and dangers of the lopsided policy mixes they have pursued in recent years. That would have been constructive, but one may doubt that it would have been decisive.

In fact, it became increasingly difficult, as 1984 wore on, to explain the continued surge of the dollar as a rational response of forward-looking markets using high real interest rates to discount back to the present from a viable long-run equilibrium rate. One alternative theory, advanced to explain the dollar's rise by the then Deputy Secretary of the U.S. Treasury, held that portfolio preferences had shifted "toward investments in countries where the anticipated relative after-tax, real rate of return . . . is higher" (McNamar 1984). The big snag with this theory is that the vast bulk of the capital inflow to the United States that has been bidding the dollar up (almost 80 percent in 1984)[4] went into financial instruments that earn a rate of interest, rather than into direct or equity investments that are presumably motivated directly by rates of return. (Of course, high rates of return might have helped raise interest rates and in that way been instrumental in attracting a capital inflow, but this takes one back to the orthodox theory that McNamar was challenging.)

Another alternative theory is that a large part of international capital flows are insensitive to short-run expected exchange rate movements, because they consist of money that is being invested for lengthy periods, or because the decisionmaker involved is not exposed to exchange risk. Adherents of this view point to the foreign investments of Japanese life insurance companies or direct foreign investment in the first category, and to the lending decisions of US banks as examples of the second category. The large swing in the US capital account in recent years has in fact occurred in US bank lending, which swung from a net outflow of over $40 billion in 1981–82 to a net inflow of over $20 billion in 1983–84. The basic proboem may then be one of inadequate capital that is sensitive to the expected short-run relative profitability of investment in different currencies, so allowing exchange rates to swing erratically around equilibrium values.

Yet another alternative theory, whose chief adherent seems to be President Reagan, holds that investors are motivated by a desire to register their confidence in a country's policies rather than to make money. Embarrassing as it may be for the economics profession, this theory does seem more consistent with accounts of what drove the markets in late 1984 and early 1985 than our standard models. But despite this most of us would be loath to endorse the theory. A more congenial solution is to postulate that, while each individual market operator remains motivated by pecuniary self-interest, each of them also recognizes that the way to make money is to anticipate what the market will do, and each believes *others* to be over-impressed by confidence factors. That takes us right back to Keynes' analogy with a beauty contest.

One of the consequences of a market in which individual operators condition their actions on their view of what they think others will do is the possibility of speculative bubbles. Events since 1984 suggest that this possibility has to be taken more seriously. Few even tried to argue that the heights to which the dollar rose in late 1984 and early 1985 could be justified as a rational response to the high real interest rates that could be expected for an interim period prior to the exchange rate returning to a plausible long-run equilibrium level.[5] Instead, the story told in the markets was that the dollar was expected to rise even more before it started its inevitable decline. Only the then Deputy Secretary of the US Treasury seemed to harbor the illusion that no such decline need ever occur:

> Turning to debt, overseas investors have shown the same eagerness for corporate dollar denominated bonds. . . . Is it the nominal interest rate differentials or the currency appreciation potential on the principal that attractys them? I would suggest that . . . the latter consideration . . . is often of paramount importance to the foreign investor (McNamar 1984).

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[4] According to the Department of Commerce (BEA 85–11 of March 18, 1985), foreign investment in the United States in 1984 totaled $21.2 billion, and foreigners were net sellers of US stocks by $0.6 billion, out of total identified inward investment of $95 billion.

[5] Marris (forthcoming, 1985) presents detailed projections establihing the implausibility of any such contention.

Thus, the anxiety to show that the dollar was not overvalued because of excessively high interest rates led Treasury spokesmen into arguing that it was strong because it was expected to become ever more overvalued in the future!

If exchange markets are in fact driven by beliefs that the unsustainable will last forever, or even by widespread faith in the possibility of getting out before the average investor when the bubble bursts, the case for conscious exchange rate management is overwhelming. For the question is then not whether it is better to allow shocks generated in the private sector to be wholly absorbed by the exchange rate rather than partly or wholly absorbed elsewhere, but whether to tolerate the independent generation of additional shocks in the foreign exchange market.

One may still hope that the US administration will come to recognize the importance of bringing the dollar down to a sensible level without provoking a loss of confidence and a new overshooting. Should it do so, the rational way to go about the task would be to combine an assault on the budget deficit with the promulgation of a target zone for the dollar (preferably after consultation with the IMF). Both elements are essential. Announcement of a target zone, backed by intervention to correct the dollar and a relaxation of monetary policy, could reignite inflation if it were not accompanied by major action on the fiscal front. Conversely, a cut in the budget deficit could conceivably stengthen the dollar unless it were accompanied by a clear statement, backed up by policy actions, that the authorities recognized that the dollar had been too strong and were intent on restoring it to an appropriate level based on long-run competitiveness considerations.

Concluding Comments

The first part of this postscript updated my estimates of currency misalignments and compared them with alternative attempts to take a view of appropriate medium-run exchange rate norms. These calculations suggested that misalignments had increased substantially since the first edition of the monograph, while the comparisons suggested that—except for the yen—there was a reasonable degree of agreement as to the correct value of the FEER. The second part of the postscript argued that a major reason for the enlarged misalignments appears to lie in larger deviations of market equilibrium from current equilibrium, i.e., in market irrationalities. In toto, one might conclude that, while implementation of a target zone approach might be somewhat more difficult than I had portrayed it, the successful adoption of such an approach would offer even bigger benefits.

This conclusion suggests that the possibility of initiating steps toward a target zone system on a more limited and experimental basis than is recommended above may be worth exploring, if nothing more extensive can be negotiated in the near term. One idea (due to Paul Armington) is that the IMF might be instructed to start calculating a set of FEERs, and publishing them in *International Financial Statistics*. The aim would be not just to provide a practical test of the feasibility of providing estimates of the type that would be essential to implement a target zone system, but also to meet the clear and present worldwide need, felt by budgeting, planning, and contracting departments of a host of organizations engaged in continuing international transactions, for valid estimates of exchange rates sustainable in the medium term. This is the minimal step that those dissatisfied with the operation of floating exchange rates should seek in the immediate future.

Appendix 6

LIST OF PARTICIPANTS

Universities and Research Organizations

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